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MILITARY AFFAIRS

No. 1645

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## AIR FORCES

### FIRE TRAINING PROBLEMS DISCUSSED

Moscow KRASNAYA ZVEZDA in Russian 22 Sep 81 p 2

[Article by Col N. Berezhnoy: "The Military Character: A Lesson"]

[Text] "And so this day has come," said Lt Col F. Samoylov, thinking out loud when the command vehicle stopped at the range CP. "Well, we'll see how the field firing goes now..."

The commander of an aviation regiment, he had not chosen the CP as his working area by chance. Last year some pilots had not functioned at the range in the best manner, chiefly through the fault of the intercept controller. Of course, this time Samoylov had confidence in the increased training level of the CP team and other specialists, although his nervousness had not departed. Awaiting the first sortie, he would look frequently at the hands of the clock, which seemingly had stopped, and tried not to think about the previous failure. But he did not succeed in freeing himself of unpleasant reflections once and for all, even in this tense situation. He recalled how it all had been.

...That cloudless summer morning happened to be surprisingly auspicious. The people's moods were a match for the fine day. The interceptor pilots took off for the clouds with spirited enthusiasm. Those who remained on the ground worked zealously, impatiently awaiting their return. In short, it appeared everything was going excellently. Then suddenly came the unpleasant news: Pilots Lt D. Anfilov and Capt A. Ravodin had not coped with the assignment. One's firing failed because of the intercept controller's mistake, and the other was guilty of a mistake himself. And some time later came more disturbing reports about low grades.

Well, let's assume that Lt Col Samoylov had not counted on the faultless actions of everyone, but here were failures for several at once, and not novices in flights for combat application... Such a thought had not even crossed his mind. What hadn't he thought over in trying to understand what had happened? Initially the "misfire" at the range seemed to be a kind of misunderstanding and it seemed that everything would fall into place soon. But no miracle occurred and he became annoyed with his subordinates. "They were not able to mobilize the people, nor did they make each person understand the importance of the mission," he said in a fit of temper, reproaching the subunit commander and political officer.

It appeared to him that success had been just around the corner. For had that same Ravodin showed more self-control and launched the missile at optimum range, his firing might have been outstanding. Or take Sr Lt Yu. Merchanskiy. Had he turned

the aircraft some 2-3 degrees, effectiveness of the attack would have been higher. It became disappointing that because of such "trivia" everything went to pot, as they say, and the overall grade was lowered.

Of course, the thoughts about ill luck which came over the regimental commander at times were poor consolation, for he still realized well that the reason for the failure lay elsewhere. Moreover, going over in his mind again all the vicissitudes of preparing for the flight, he found omissions and shortcomings in his own work, even though there was no denying that much had been done. They had held a technical flight conference, a session of the methods council and all other activities, and the best specialists had exchanged experience. And just before that the pilots had performed all authorized exercises. Nevertheless the question persistently arose: Just why were results low for some pilots? The squadron commanded by Lt Col A. Golomovzzy had not pleased him this time.

Lt Col Samoylov went to the result summarization with heavy heart. Later, listening to an analysis of the pilots' actions in flights for combat application, he noted to himself that the feeling of alarm had passed. It seemed as if the senior commander had set the goal especially to answer all the questions which troubled him as well. How many times later Samoylov recalls that critique gratefully. It was then that he finally settled on the thought that the mistakes made by the pilots had not been accidental. And it was not at all a matter of some of them being just a bit off in something. This seeming "just a bit," which he so wanted to use in some way to make excuses to himself, in fact was a deficiency of expertise of his subordinates, which means a result of omissions in their training. And if he were to be objective to the end, he himself had made a serious miscalculation. He had not attached proper significance to the fact that prior to that, during training exercises, some pilots had not kept within the norms.

It is true that the regimental commander intended to dig into everything and check the quality of the instructors' training, the more so as Lt Col Golomovzzy was on an extended TDY trip. But what happened in fact? An additional number of flights were planned for some pilots, the methods council talked about the features of performing those flights, and there had been an exchange of experience in the classroom. To his surprise, Samoylov was not able to explain to himself just what he had worked on in those two months if he still had not found time to improve decisively the quality of preparation for firings. It was as if those many weeks had not existed, although he was engaged each day from morning until late in the evening with urgent affairs, and he himself also had flown and controlled flights.

Samoylov had heard more than once about formalism, but he never thought that his own style of work was far from perfect. No, he of course couldn't reproach himself for being conceited, but at times he didn't heed serious advice. That is a fact. He recalled how Lt Col Golomovzzy once said anxiously that in pursuit of overall flying hours he sometimes lost control over the quality of the flight personnel's training. But Samoylov brushed this aside: All in good time, we'll make it up.

It was not easy to admit his own mistakes, but it was also no simple matter to correct them. There was the desire to change his work style for the better immediately. Only how was he to proceed on that very first flying day after the unsuccessful firing? Specifically with what was he to begin the readjustment? Preparation for flights? They themselves took place with ordinary precision and Samoylov could find nothing which should be abolished immediately or done in a new way. It

is true that in taking a closer look at his subordinates, he noticed nevertheless that there had been changes. More precision had appeared in the radio exchange between the flight controller and pilots. He didn't see the fussiness in the technical personnel or specialists of the aviation rear which at times dissatisfied him. On the whole, the flight section took place in organized fashion.

One sensed that the people had taken to heart the very fact of failures at the range just in the way they worked. The discussion with commanders, political officers and party organization secretaries held prior to that unquestionably also had an effect. At that time they frankly expressed everything troubling them.

On the advice of officers from higher headquarters, the regimental commander began to analyze more thoroughly how effectively flying time was being used. What was learned? The quality with which flight sections were planned was sometimes poor. In correcting the deficiency, Lt Col Samoylov had a chat with the chief of staff and his own deputies. Then he held a few demonstration flying days. Then changes for the better already began to be apparent in the planning of flight training. The quality with which assignments were worked in the air rose noticeably thanks to adoption of the practice of analyzing objective monitoring materials between flights.

"This is an important matter," Lt Col Samoylov told me once. "But I had to explain and persuade in order for every pilot, engineer and technician to understand thoroughly the imperative need for such an analysis."

The party members are reliable assistants to the commander in training and indoctrinating personnel. They set the example in socialist competition for expert mastery of weapons and equipment and use the strength of party influence to rally the military collective and strengthen the spirit of collectivism and troop comradeship in it.

And now again there was a strict test for combat maturity. Samoylov looked at the clock and just then a pilot's familiar voice sounded in the dynamic loudspeaker:

"Request permission to start up."

"Permission granted," responded the flight controller.

In a single instant all of Lt Col Samoylov's anxieties and recollections were replaced by the precise picture of upcoming combat, comprehended to the smallest detail. Now he knew and had no doubt that the regiment's pilots were capable of the most difficult assignments and that ahead lay aerial combat in which one thing was required--to win.

The regiment performed the firing with outstanding results.

6904

CSO: 1801/042



## AIR FORCES

### PHOTOBOMBING TRAINING DISCUSSED

Moscow KRASNAYA ZVEZDA in Russian 29 Sep 81 p 2

[Article by Col N. Grigorchukov, military pilot-sniper, Group of Soviet Forces in Germany: "Effectiveness and Quality are Most Important: Capacity of the Flight Assignment"]

[Text] I chatted with squadron commander Gds Lt Col V. Zhuravlev after completion of the flight section. "Some pilots," he said, "have had a break in flights for photobombing and photofiring. I will have to plan these exercises for them to restore lost skills..." The squadron commander gave the name of a pilot whose flying techniques he had just checked out in the zone. "Why don't you integrate the exercise for attack of a ground target in his flying?" I asked. "For in that case no additional time or fuel consumption would be required for performing photobombing and photofiring."

It is apropos to note here that the ground target--an aircraft mock-up which denotes the target--also is not far from the airfield. And so on returning from the flying zone and prior to the approach for a landing it was possible to check the trainee's ability to hit a ground target concurrently; of course, if the exercise had been envisaged in the flight assignment. The squadron commander had not taken this into account. "I lost sight of it," he said, spreading his hands helplessly. "We drew up the flight planning table without thought."

This example speaks for itself, above all about the fact that reserves for intensifying the training process and improving aviators' professional expertise, which lie in integrating several exercises in one flight assignment, are not always fully used. Take that same squadron headed by Officer Zhuravlev. Yes, it is distinguished by a high degree of pilot training in performing maneuverable aerial combat, but the training of some pilots in performing attacks against ground targets leaves much to be desired.

What is the reason for this? It turns out that it lies in the planning methodology itself. The following picture often is to be seen. A planning table has to be drawn up for the following flight section. Who does this? Most often, the squadron commander himself or his deputy, and flight commanders do not always take part in the planning of flight assignments. But who is to know better than the flight commander, the immediate instructor of flight training, which of his subordinate pilots performed previous exercises and with what quality; and how firmly they reinforced flying skills?

No, I am not at all in favor of complicating the very process of planning, which would turn into a "roundtable" activity with the participation of a larger number of officers. To the contrary, there is nothing wrong with the squadron commander or his deputy preparing a variant of the planning table ahead of time. But it is important for flight commanders to be familiarized with this plan as well and be able if necessary to make their own corrections with consideration of the subordinates' training and individual features. It is this thoughtful approach to planning that permits envisaging the optimum complex of exercises for each aviator and most effective use of flight time.

But it can happen as follows. Once I was returning to our airfield in a two-seater after checking out the flying techniques of Gds Maj K. Yefim'yev in the zone. I closed the pilot's cockpit with the hood on the landing course to check his ability to maintain the given regime of descent from instruments. Officer Yefim'yev took the aircraft along the glide path as if along a string. We passed the line where the instructor previously opened the pilot cockpit, but Yefim'yev was controlling the aircraft so precisely and confidently that I decided to take advantage of the right granted me and open the pilot's cockpit only above the near radio beacon. The fact that Officer Yefim'yev demonstrated a high degree of flying techniques and training was natural, for he is a first class specialist. But just why was his authorized weather minimum considerably below his abilities, although such an experienced aviator could perform assignments under more difficult conditions?

Again, as it turned out, the reason lay in shortcomings of planning, since hooded flying had been included far from always in the exercise complex in checking pilots' flying techniques in this subunit. Omissions in the methodology of integrating assignments also were noted in the squadron commanded by Lt Col V. Koroteyev. At one time here only twenty percent of flights in the two-seat trainer for checking flying techniques ended with a landing approach under the hood. As a result even some highly rated pilots did not take full advantage of the modern aircraft in instrument flight. Therefore it sometimes happened that when weather conditions became more difficult, an aviator with a sufficient level of training did not receive an "okay" for take-off, although he could successfully cope with the assignment with the most severe weather minimum, as they say.

The experience of foremost commanders indicates convincingly that capable integration of exercises, particularly for the purpose of regular practice in controlling an aircraft by instruments under the hood both in the two-seater and in a specially outfitted combat machine, represents no small reserve for perfecting aviators' flying techniques and increasing their combat schooling.

Take for example the squadron commanded by Gds Lt Col A. Kastornov. All first class pilots here are distinguished by good training in flights with a weather minimum. In addition, skillful integration of exercises permits them to attain a tangible saving in the operating time of aviation equipment and in fuels and lubricants. Here is but one fact which graphically explains the interrelationship of combat training economy and rational planning. If every flight by a trained pilot in the two-seater ends with practice in hooded flying, then without any additional expenditures of supplies almost all squadron aviators will be able to perform prescribed norms for the given type of training in a single aircraft over a year's time.

And so a thoughtful approach to the matter permits achievement both of an intensification of the training process and zealous use of engine operating time and fuel. But looking at flight documentation in the subunit, one can see where a first class pilot who has just returned from leave has several flights planned for him in the two-seater with a gradual increase in difficulty of assignments. But it is possible to integrate a number of exercises on the very first flight for such a highly rated pilot in accordance with guidance documents. Why don't some commanders dare take advantage of the rights given them? One usually hears references to concern for flight safety as an answer. But frankly speaking, oversimplification has nothing in common with the struggle for accidentfree flight operation. That same method of restoring flying skills over an extended time sometimes results in a trained pilot having his ardor dampened in performing a deliberately oversimplified assignment, his attention is relaxed and he makes mistakes as a result.

Of course, the competent, methodologically correct integration of flying exercises requires a thorough knowledge both of guidance documents and of the pilot's individual features. It is especially important to take this aspect into account, for what results for some commanders is not an integration of exercises, but merely an addition of certain elements to the basic assignment. Or the other extreme is that so many exercises are included in an assignment that even a first class pilot is incapable of performing them with high quality. And instances where exercises which are incompatible from the standpoint of assuring flight safety are provided for in a flying assignment are absolutely intolerable.

Just how can a commander be taught this delicate and responsible matter? The unit methods council has an important role to play here. It is called upon to generalize and disseminate foremost experience and draw up concrete recommendations for integrating exercises with consideration of missions assigned.

At the same time, there are questions in integration of flying exercises which in my view have to be resolved at a higher level. In particular, one of the reserves for intensifying the training process can be seen in an updating of certain provisions of guidance documents. Capabilities of the modern aircraft provide for successful accomplishment of many operational training missions in a single flight. For example, both the fuel reserve and weapons of the missile-armed fighter permit accomplishing several intercepts in the entire range of altitudes using different kinds of on-board weapons. Variants of integrating exercises in delivering attacks against ground targets also have expanded considerably.

In other words, the increased capacity of the flight assignment is a most important factor for raising the effectiveness of combat application. Therefore we cannot forget that skilled integration of each assignment in the air largely determines success in perfecting pilots' air schooling, which means success in further strengthening the combat readiness of flying subunits.

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## AIR FORCES

### TECHNICAL CONTROL OF COMBAT AIRCRAFT

Moscow KRSNAYA ZVEZDA in Russian 13 Oct 81 p 2

[Article by Lt Col G. Sverdlov, Red Banner Odessa Military District: "New Weapons and Tactics: In a Difficult Situation"]

[Text] The beginning of the practice combat did not presage any kind of complications. The "enemy" aircraft flew at medium altitudes along routes well studied by the radar operators, maintaining speed and course precisely. To some extent this lulled the vigilance of the command post specialists. Sr Lt V. Arkhipov, who headed the command post team, also had come to believe that mission accomplishment would not require special efforts.

But then one of the targets maneuvered sharply and changed course. It became clear that they would not succeed in tracking it without interruption using the operating equipment. There was one solution: to switch on urgently a radar with different technical specifications. But Sr Lt Arkhipov did not react in the best manner to the change in the situation. He continued to direct subordinates in conformity with a preselected plan, did not switch on objective monitoring equipment and was late in reporting the target's maneuver to the battalion commander and the higher CP. The officer dawdled and awaited prompting at the most decisive moment of combat. This could not help but reflect on the quality of data put out by the radar operators.

In analyzing events of the practice, Lt Col A. Samoylov, commander of the radio-technical battalion, concluded that Sr Lt Arkhipov had not taken full advantage of all opportunities for obtaining high-quality data on the air situation for the reason that he did not have at his disposal sample variants for organizing combat work under extreme conditions. Such variants, which are algorithms for actions of team leaders, help make substantiated decisions competently and with a minimum expenditure of time in unexpected, rarely encountered situations. Use of the algorithms permits reducing the time taken for analyzing and estimating the air situation and making decisions. In addition, it develops such important qualities as initiative and independence in the officers serving in combat control entities.

It stands to reason that guidance documents define procedures for organizing combat work and contain concrete recommendations on how to act in different conditions of combat. But one battle does not resemble another. At the same time, one can envisage ahead of time the most probable from among numerous possible variants and identify from among a large number of typical elements those characteristic of many

situations. This is what is the basis of the creation of algorithms. With differing variants of combat actions at hand, the officer-team leader can if necessary use the one which most corresponds to the situation at hand.

The team headed by Maj V. Mazgonov, master of radiotechnical troops, distinguished itself in a recent tactical exercise. At the height of the exercise an operator reported that the group of aircraft which he previously had been observing steadily had turned at one of the lines and the blips from the target had disappeared from the scope. A critical situation arose: The "enemy" could approach the installation under cover while remaining invisible.

After estimating the situation, Mazgonov realized that the aircraft had decreased altitude sharply. The officer quickly calculated the targets' possible location and then assigned the operators the mission of searching for them in a very specific area. And soon a report came from the station about the appearance of blips.

The team commander was helped in making a proper decision by his detailed knowledge of the matter and his ability to make competent use of algorithms of combat work.

How can the team leaders and above all those officers who perform duties as CP duty officers be provided with the greatest number of reserve variants of actions and be taught to choose the optimum from among them?

A specific system for training command post specialists has taken shape in many radiotechnical units. For example, officers authorized to perform operational readiness duty at the CP in Unit "X" are included in courses twice in a training year, where theoretical and practical classes and short tactical training problems are held with them. The officers perfect skills in controlling teams under difficult conditions of the air situation, update variants for actions under extreme situations and develop efficiency in tactical thinking, boldness in decisionmaking and volitional stability.

All this is of unquestioned benefit. The majority of CP officers successfully cope with their functional duties and knowledgeably direct the teams. But a person won't master all the fine points of efficient work in courses alone. Other effective training forms must be used, the more so (as indicated by inspections) as some CP specialists are seen to have substantial gaps in their professional training. For example, after showing firm knowledge of guidance documents, senior lieutenants A. Orlenko and V. Arkhipov at the same time analyzed and estimated the air situation in an uncertain manner and did not always make substantiated decisions. But both officers are first class specialists. What is the reason for such a divergence between theory and practice?

A study conducted in one of the subunits on what positions the officers had held before their appointment to the command post helped answer this question. It turned out that some of them had been chiefs of radar stations and others had been section chiefs. The other officers also had not been connected with work in combat control entities.

That is approximately how things stand in some other subunits as well. Of course, the officers at one time took appropriate retraining, increased qualifications in courses and worked individually under the direction of their commanders. But is this enough? The fact is that capabilities for operational work are not the same

for all. It follows that more attention should have been given to practical matters of the officers' preparation.

Unfortunately, this does not always happen. Some commanders believe that command post officers must be taught questions of tactics "generally and as a whole." The air situation never is the same, they say, and situations arising in combat work are as changeable as they are unpredictable. And so, they reason, to "tie" the actions of duty officers to ready-made variants means to accustom them to stereotypes.

One hardly can agree with this. Take just the fact that every position of the radar operators has zones "inconvenient" for concealed flights of aircraft in connection with features of the terrain relief and other conditions. It follows that the enemy's capabilities always are limited to some extent. One has to prepare possible variants of combating the enemy in conformity with the estimated number of variants of the air enemy's actions. That in particular is the belief of Lt Col A. Samoylov, master of combat qualification, who was awarded the Order of Red Star and Order "For Service to the Motherland in the USSR Armed Forces" 3d Class for success in combat and political training.

Duty officers in many foremost subunits make active use of similar conditional diagrams in practice, varying their use depending on the concrete air situation. They are successful as a rule.

Competition provides a great deal in increasing the schooling of CP team leaders. Unfortunately a commander sometimes evaluates the actions of CP officers in a one-sided manner in summarizing results and does not perform a detailed analysis of the techniques and methods of their work. It happens where an officer who acted in a difficult situation during his tour of duty, displayed initiative and found the optimum variants of decisions; and an officer who had occasion to work in situations requiring no special efforts receive identical grades.

It would appear that a strict record of the number of outstanding tours of duty for a certain time period could become a major stimulus for an increase in CP officers' expertise. During the war frontlinesmen kept a combat count, noting their victories with little stars on aircraft cockpits, the tubes of tank guns and the shields of artillery pieces. And why not now keep a record of faultless tracking of important targets, accurate guidance and outstanding tours of duty in radiotechnical subunits? This is an extremely rare practice at the present time, which is a pity. Thousands of outstanding tours of duty, trackings and guidances are milestones in the combat activities of officers, and it would appear that they must somehow be recognized in the collective and reflected in visual agitation.

Officers who perform as duty officers are called special purpose fighters, and not by chance. In heading CP teams in the absence of commanders, they bear full responsibility for performing the combat missions assigned to the subunits. For this reason the training and expertise of these officers must correspond fully to a level guaranteeing unconditional performance of the mission in the most difficult situation.

## AIR FORCES

### FLIGHT SAFETY DISCUSSED

Moscow KRASNAYA ZVEZDA in Russian 18 Oct 81 p 2

[Article by Lt Col V. Skrizhalin, KRASNAYA ZVEZDA correspondent: "Just One Episode: Reserve Altitude"]

[Text] Flights were under way. It was the usual workday at the airfield.

The supersonic operational training aircraft with Col I. Zhukov and Capt A. Abalentshev in the cockpits departed steeply for the sky with a strained roar of turbines in just as usual a manner as did all the fighter-interceptors before it. The time came and the two-seater aircraft, which had just been flying beyond Mach 2, made a landing without any apparent deviations from the norm and completed its run along the ground, held back by brake parachutes. Only a few persons noticed in a detached way that the aircraft had touched down on the concrete runway somewhat heavily. And only the pilots themselves, the flight controller and a few other persons knew what it took to make this safely concluded landing...

...The operational training aircraft crossed the lower boundary of the stratosphere, continuing to ascend with a simultaneous build-up in speed. This was a relatively calm sector of the flight. Flying straight ahead at supersonic speed creates an illusion of immobility and peace at such a high altitude, where there usually are no turbulent air flows or jet streams, and even the roar of engines is almost inaudible as if it can in no way catch up with the aircraft flying faster than the speed of sound.

And perhaps that was why the clap and jerk which the pilots felt simultaneously and which was incomprehensible because of its suddenness, echoed so resoundingly in the aircraft. What could that be?

The engines were operating normally. A quick glance at the instruments showed one of the needles had barely moved from its place. It was a slight deviation, but there are no trivial matters in the air and the slightest discrepancy with a given regime, even seeming to be within safe limits, must be checked and rechecked.

"Try the controls..." passed on the instructor over the intercom.

"Aircraft controllability is what is most important," Col Zhukov would say later. "It is trouble if the engine stops, but not as much as if the controls give out. In this case the only solution is to abandon the aircraft."



This is why the instructor began specifically with a check of the controls, but he did not hasten to do this himself. Ivan Yefimovich considered the situation not yet critical, although it was not completely clarified. The premature intervention and substitution for the trainee might turn him off and deprive him of initiative. But where is the danger limit up to which a trainee can control the aircraft and beyond which he, the instructor, must assume control? On the one hand, the experience of Abalentsev (he is a first class military pilot) permitted this limit to be extended. On the other hand, he was just mastering this type of interceptor and it was important to inspire in him confidence as to his ability to act professionally and competently in what was a new aircraft for him, albeit in a nonstandard situation. This was both a school and a test. It is the extreme situation that can provide the most accurate answer as to what a trainee is capable of, but on one condition: He must be an active performer in it.

...The aircraft banked obediently, subservient to pilot Abalentsev, with a movement of the column to the right and left.

"Increase climb angle..."

Here Zhukov felt it: It was as if the control column had struck an invisible obstacle without covering a third of the prescribed distance. The first thought (and report to the ground) was that the ARU--the automatic power control--had malfunctioned.

As a matter of fact, the limitation in control column movement occurred for another reason which, strange as it may seem, was not connected with the control system and the appearance of which can be placed in the category of chance occurrences unrelated either to the aircraft design or to the people servicing it.

But they learned this later on the ground when the pilot had "brought in" the defect. It would be impossible to determine with absolute accuracy the cause and, most important, to preclude the possibility of its repetition had they used the right to eject and, according to all flying laws, Zhukov and Abalentsev had such a right.

And so the control column had less than one-third of its movement and the tail surface had even less. The pilots realized that the aircraft could no longer be given the necessary landing angle and it followed that a normal landing was precluded. Nevertheless flight controller Maj N. Appolonov heard Col Zhukov's decision:

"We'll try to land."

The control column had to be moved forward in order to shift into a descent, but Col Zhukov also did not preclude the irreversible consequences of this short movement of the control: What if it suddenly jammed in a forward position? Then there could be no thought of any landing. With the available movement of the tail surface it was still possible to give the aircraft some kind of landing angle if only a curtailed one. Therefore they had to preserve it, fix it so to speak, no matter what.

The effectiveness of the tail surface is greater in dense layers of the atmosphere and at subsonic speed, but a descent using a change in the attitude of the tail surface was precluded. Zhukov decided to place the aircraft in a descent angle by

reducing speed. Making that decision (the only correct one, as specialists would note later) took seconds, but all his professional expertise and experience essentially were included in them.

Col Ivan Yefimovich Zhukov is a senior inspector-pilot. Many in air defense aviation know him as a most experienced specialist with the qualification of a sniper. There probably is no unit which he has not visited or which does not have his students. Going up with a pilot in a two-seater, he evaluates the degree of his schooling and readiness to perform assignments successfully in a combat fighter-interceptor.

And now, when it became clear that further flying involved great risk, Col Zhukov assumed control.

The afterburner was switched off. Engine rpm was reduced to a certain limit. Losing horizontal speed, the aircraft lowered its "nose" and rushed toward the ground along a steep trajectory. It was kept from what is called falling by the inertia of movement and by that one-third movement of the tail surface which the pilot fixed dead, as they say, keeping the control column in the previous position.

Such a vigorous drop from many kilometers of altitude requires boldness and strong nerves. No, it was not bravery. Col Zhukov's risk was based on a sober calculation. Experience multiplied by detailed knowledge suggested to him that with the given descent angle which he was maintaining by the thrust of the engines, the force of air resistance still should be greater than accelerative force and, since that were so, the aircraft would not increase speed "despite" the laws of gravity but, to the contrary, it would gradually decrease speed to single units, would shift to subsonic speed and become controllable.

And everything happened as he foresaw it. In making the "aircraft descent with a great vertical speed" (as the specialists called his dive), Zhukov sensed that the closer the earth and the denser the atmosphere, the more noticeable was the drop in speed and the more perceptible the tail surface's effectiveness. And finally the moment came when the aircraft moved into horizontal flight.

"It was here that I realized that we would land," Zhukov would say later. And he would add: "When we shifted to subsonic speed and the aircraft already could be controlled, I recalled the chart board. It was attached to my thigh by a rubber band, as that made it more convenient to make entries on it. The landing was still a long way off, and ejection was not precluded. If we should have to jump, the chart board would not survive. It would be torn away. I would put it in my pocket. I passed the control to Abalentsev: Even now he could not be taken out of the work and since I was messing with such a trivial matter as the chart board, that meant everything was in order onboard. Although he did not fly for long, it was sufficient to understand that he was handling himself normally and hadn't lost presence of mind."

That is an episode in that acute, critical situation, but the pedagogic tact of Ivan Yefimovich generates no less admiration than his flying proficiency...

But they didn't land with the first pass. Zhukov did everything he could, but he failed in placing the aircraft at the requisite landing angle. Only speed kept it in the air with the locked tail surface, and greater than the speed at which the



aircraft lands under ordinary conditions. Since the aircraft was coming in for a landing along a normal glide path, speed could turn from an ally into an enemy. Col Zhukov realized this. Intuition prompted him to choose the optimum power setting for the landing approach.

"I increased rpm," says Col Zhukov, continuing his story. "If the engines don't increase thrust we will eject. They did and we went around for the second time..."

Now they took the aircraft in from a long way off, along an extremely gentle glide path at increased speed providing sufficient effectiveness for the tail surface in longitudinal control of the aircraft. The brake flap was put down and engine thrust increased. If anything happened they would retract the flap and the aircraft, freed of the brake, still would gain a saving speed and it would be possible to go around again.

But another pass was not necessary. They landed!

"What helped you land the disabled aircraft?" I asked Ivan Yefimovich.

"A reserve of altitude."

Col Zhukov had in mind an altitude measured in kilometers. But I was thinking of another kind--the altitude of proficiency and courage.

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## GROUND FORCES

### TRAINING BASED ON EXPERIENCE OF 'ZAPAD 81' EXERCISE

#### Tank Unit Offensive Training

Moscow ZNAMENOSETS in Russian No 11, Nov 81 (signed to press 22 Oct 81) pp 6-7

[Article by Gds Sgt L. Ponomarev, tank commander: "In a Meeting Engagement"; passages enclosed in slantlines printed in boldface]

[Text] The exercises of the troops and naval forces, "Zapad" [West]-81," took place in an atmosphere of the tremendous political and labor activity of the Soviet people caused by the historic decisions of the 26th CPSU Congress. The strict examination for combat maturity was passed with honor.

The General Secretary of the CPSU Central Committee, Chairman of the Presidium of the USSR Supreme Soviet, and Chairman of the USSR Defense Council, Marshal of the Soviet Union Leonid Il'ich Brezhnev, gave a high grade to the actions of the troops and naval forces which inspired all personnel of the Armed Forces to new successes in military labor.

The "Zapad-81" exercises were a new position in the combat improvement of those subunits, units, and large units which participated in them. Their combat experience is the priceless property of all Soviet servicemen, and its active study and implementation--the primary duty of commanders at all echelons and each soldier and seaman, sergeant and petty officer, and warrant officer [praporshchik and michman].

In this number of the journal, we present the word of participants in exercises "Zapad-81" and we hope that the crumbs of experience which we have acquired will be introduced in the practice of training and indoctrinating the men of all the services of the Armed Forces.

In recalling the days of the "Zapad-81" exercises, I ask myself: what was the greatest difficulty? And I answer: /the acute shortage of time/. The nature of combat events changed with such speed and with such suddenness that it was necessary to mobilize all our forces and knowledge in the shortest time for the successful accomplishment of suddenly arising missions. And if, on a regular lesson in

the field knowledge on some specific subject was required of me as tank commander, on the exercises the situation forced the correct employment of the provisions and recommendations of the field manuals to the fullest extent daily and hourly.

That's how it was on the day when our tank subunit occupied a defense area. The order arrived unexpectedly--to move out rapidly over a difficult route and halt the advance of the "North's" subunits which had broken through the defense of the "South" on an intermediate line. A meeting engagement became imminent. The converging of the sides occurred quickly; little time remained to define our decisions in detail and assign missions to subordinates, and we, the commanders at various echelons, did not have sufficient information about the "enemy" and the terrain.

For our tank crew as well as for all tankers of the order-bearing Guards unit, battles were initiated long before the "Zapad-81" exercises. They began in the training classrooms and in the park, on the the firing grounds, on the drill field, and on the training tactical field, tank driving grounds, and range. We set a goal for ourselves: to work out all training missions and combat standards with an excellent grade, achieve complete interchangeability, lead our crew out among the leaders, and win the right to be called a crew of experts and high-class specialists.

The persistent struggle for high results in competition were crowned with success in the year of the 26th CPSU Congress. By the results of combat training, the crew won first place in the unit and we were awarded the challenge pennant imeni Hero of the Soviet Union Guards Sergeant A. Yakovenko.

But nevertheless, during the swift march which was undertaken to forestall the "enemy" in deployment and to inflict a surprise strike on him, after which he would abandon a further advance, uneasiness did not leave me: will my subordinates be able to operate confidently and competently in any most difficult situation and as required by contemporary battle? Had I done everything for this?

Events unfolded rapidly. The crews of the patrol vehicles were the first to clash face to face, and literally in minutes the advance parties "clung to" lines. And soon, deafening everything around, the guns thundered as did the explosions of bombs, shells, and mines. A meeting engagement broke out. /Its conditions were as close as possible to actual combat reality. I do not say this to be clever. Judge for yourself: firing simulators and hit simulators were installed on some tanks of both sides. If a gunner fired an accurate round at an "enemy" tank, a special device stopped the combat vehicle, its motor died, an electric bulb lit up brightly on the turret, and a smoke pot was triggered. So the tank duels of the sides cannot be called hypothetical. The concepts of "forestalled" and "won" had a completely real content. Here, too, each one tried to operate as if in real battle.

It was necessary to think of how to destroy the "enemy" and of how to preserve one's machine. We tried to use the folds in the terrain as well as the brush which covered almost the entire tank hull/.

And the "enemy" proved to be worthy. This was immediately evident from the clear coordination and activity of the crews of his tanks which approached us at high speed. I was especially struck by one of them--with turret number 234. Now taking cover in clouds of dust, now appearing again, this tank rushed forward and threateningly looked in our direction with the black pupil of the gun muzzle.

/"Leader of the attack!" I guessed. He is now visible to the entire "North" subunit and he is carrying them forward. For in battle, the leader inspires his comrades to decisive actions and, at the same time, stuns the enemy and fetters his will to resist/.

"Straight ahead, lone tank, 1200, on the move--fire!" I gave the command to the gunner.

Private A. Kholmirezayev is a first-class gunner; he learned to destroy any targets with the first rounds and with the first machinegun bursts. How will he work now? Will the impetuosity of the leader of the "North's" attack exert a mental influence on him? No, I did not err in my subordinate. The soldier operated coolly and prudently. He set the setting precisely, aimed the gun quickly, and fired. The "enemy" vehicle stopped and smoked up.

/I cast a quick glance in the direction of the "North's" battle line. A steel wave is rolling smoothly. I looked more attentively--through the instrument I saw a new attack leader. The matter is clear--a second shell--at him. The gunner took the hint and, with an accurate round, "removed" the second leader from the point of the attack. Two "knocked-out" tanks are several hundred meters of gap in the "enemy" combat formation. But nevertheless, not quite enough for possible maneuver/.

The third tank was "knocked out" by the crew of Guards Sergeant Goloborod'ko, and the fourth--by the crew of the platoon leader. The gap in the "North's" combat formation attained impressive dimensions. "We could really use it for the bold emergence in the 'enemy' rear," I had barely succeeded in thinking, when I received the order for maneuver. Exploiting the gap which had opened up in the attackers' combat formations, the tanks of our subunit tore forward and counterattacked the "enemy" boldly, inflicting tangible losses on him with accurate fire.

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#### Motorized Infantry Airborne Training

Moscow ZNAMENOSETS in Russian No 11, Nov 81 (signed to press 22 Oct 81) pp 7-8

[Article by Sgt I. Savko, squad leader: "Without the Helicopter's Landing"]

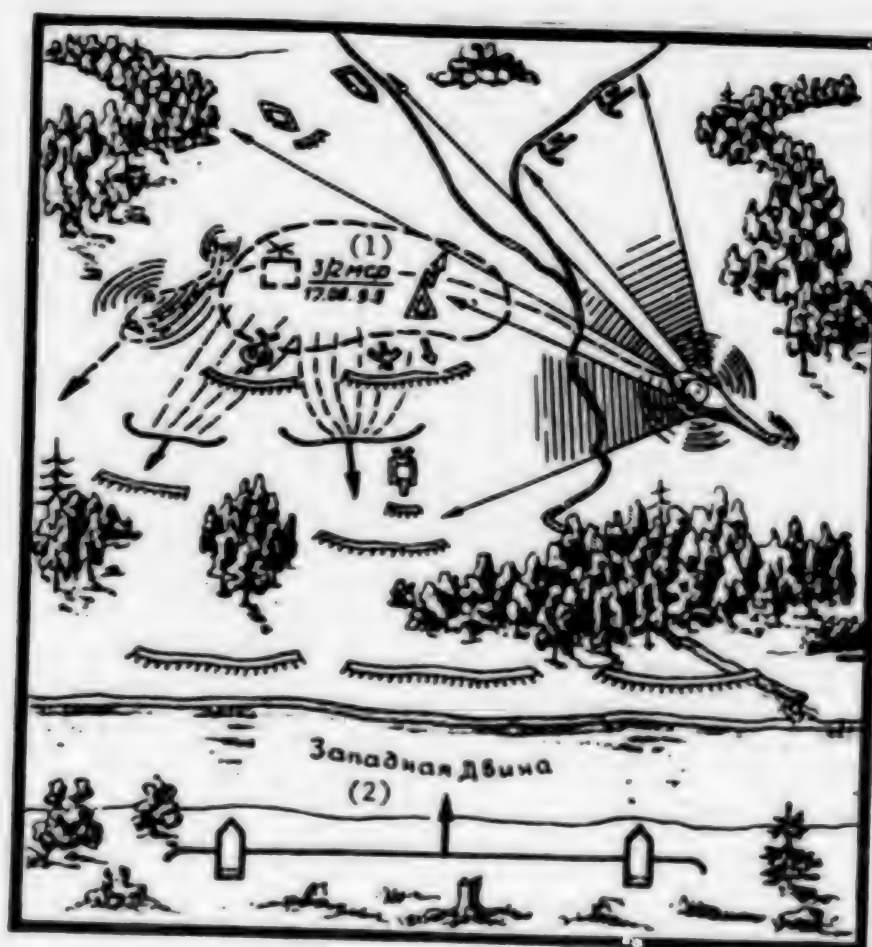
[Text] On the "Zapad-81" exercises our squad had the occasion to operate as a tactical airborne assault as part of a motorized rifle company--to disembark from helicopters in the "enemy" rear and support the successful assault crossing of a big water obstacle by the main body.

We also had to accomplish such missions earlier, too. We were to disembark from helicopters not after they touched down, as had often been the case in the past, but while hovering, from a height of several meters.

Learning of this, some soldiers began to fret. I understood well the mood of my subordinates. Frankly speaking I, too, was nervous: a little high all the same. Moreover, we were not to jump in sports clothes and not in sneakers, but with full combat pack and under the elastic load of the rotor's air current.



We began preparations for accomplishing the mission with drills. We learned to jump from a tower from different heights. The men of the squad gradually stopped being afraid of heights and learned how to hit the ground correctly flat-footed and to prepare for action quickly.



Key: 1. Motorized rifle company  
2. Western Dvina

The day for drilling on the materiel arrived. A meeting took place with the helicopter pilots who told about the rules for embarking and disembarking as well as about safety measures.

And here was the first landing of the force. The helicopter, dropping toward the ground, hovered rather than landing and the force disembarked quickly. This was done in the interests of the battle. For if the rotary-wing aircraft land on the ground in a certain area, the "enemy" guesses that a force has landed. It is a different matter when they accomplish the operation while hovering, spending minimum time on this.

The jumps began. I was the first to leave the helicopter. A strong air current pushed me toward the ground which had slipped away from beneath my feet. Touching the ground with my feet, I lost my balance and fell on my side for self-protection. This time, no one in the squad stayed on his feet. And on landing one soldier even dropped his assault rifle from his hands.

The test landing proceeded unsuccessfully. What remained to be done? The commander of the subunit, Senior Lieutenant V. Kudryavtsev, assembled all of us directly in the field--he advised us to give some thought together on how to organize drills so as to bring them close to actual conditions. There were many suggestions. We decided to take as the basis the rules for actions of the paratroopers. The commander obtained the appropriate textbook, studied its provisions with the sergeants, and conducted the drills in a new manner. We now used for the jumps the precipice of a river bank with a gently sloping incline and soft dirt. You make a running jump, push away from the edge of the precipice--and it's as if you are accomplishing a parachute flight. During the free fall, just like a paratrooper, you gather yourself up as you prepare for a landing.

Such drills proved to be more effective than the former ones when the jumps were accomplished from a tower from in place.

We conducted the next test landing from several meters, one can say, excellently. No one fell or dropped his weapon. The soldiers left the rotary-wing aircraft quickly and prepared for action literally in seconds. The drills became more complicated. And now, from the experience which has been had, it can be boldly stated that it is not even dangerous to jump from a great height onto soft ground (plowed fields, deep snow).

The question of the landing order arose. Everything is clear here for the paratroopers--they leave the airplane in strict dependence on the weight of the paratrooper. We have no necessity to adhere to this rule. In return, it is important for us to land in accordance with the combat formation, in particular, of a squad, which it employs when deploying into a skirmish line. For we do not pronounce in jest the phrase: "From the sky--into battle." It is namely in the sky that we must form up in combat formation.

I will tell about my squad. When flying up to the landing area, we opened fire on "enemy" targets directly from the air. And when we landed, it was not necessary for me to waste time on reforming. I firmly knew that the machinegunner is on my right and the grenade launcher is on the left flank. Therefore, with the shout "Hurrah!" the squad moved into the attack on the "enemy" as if it attacked from the assault position rather than after landing. The other squads, platoons, and the company as a whole operated in exactly the same manner.

Landing on the opposite bank of the water obstacle, our subunit simultaneously struck the rear of the "enemy" who was defending the river. We furthered the successful assault crossing of the water obstacle by the main body by this.

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## Motorized Infantry River Crossing

Moscow ZNAMENOSETS in Russian No 11, Nov 81 (signed to press 22 Oct 81) pp 8-9

[Article by Sr Sgt A. Chizhik, commander of infantry combat vehicle: "Across a River--From the March"; passages enclosed in slantlines printed in boldface]

[Text] The "Zapad-81" exercises of troops and naval forces have ended. But again and again I mentally go through them over difficult roads and how many times I thoroughly analyze each instant of the most difficult march, the decisive and audacious attack, the swift rush across the river as part of a forward detachment, the most stubborn defense. I want each crumb of acquired experience to come in handy in the future for the best training and indoctrination of subordinates and for raising combat readiness.

Perhaps, most of all I recalled the assault crossing of the Western Dvina from the march for which the crew of the BMP [infantry combat vehicle] which I command as well as our entire company were awarded the thanks of the senior commander.

The main conclusion which I drew from the assault crossing: /for the successful accomplishment of this mission it is necessary to have excellent knowledge, firm skills in mastering weapons and combat equipment, and high moral-psychological training/.

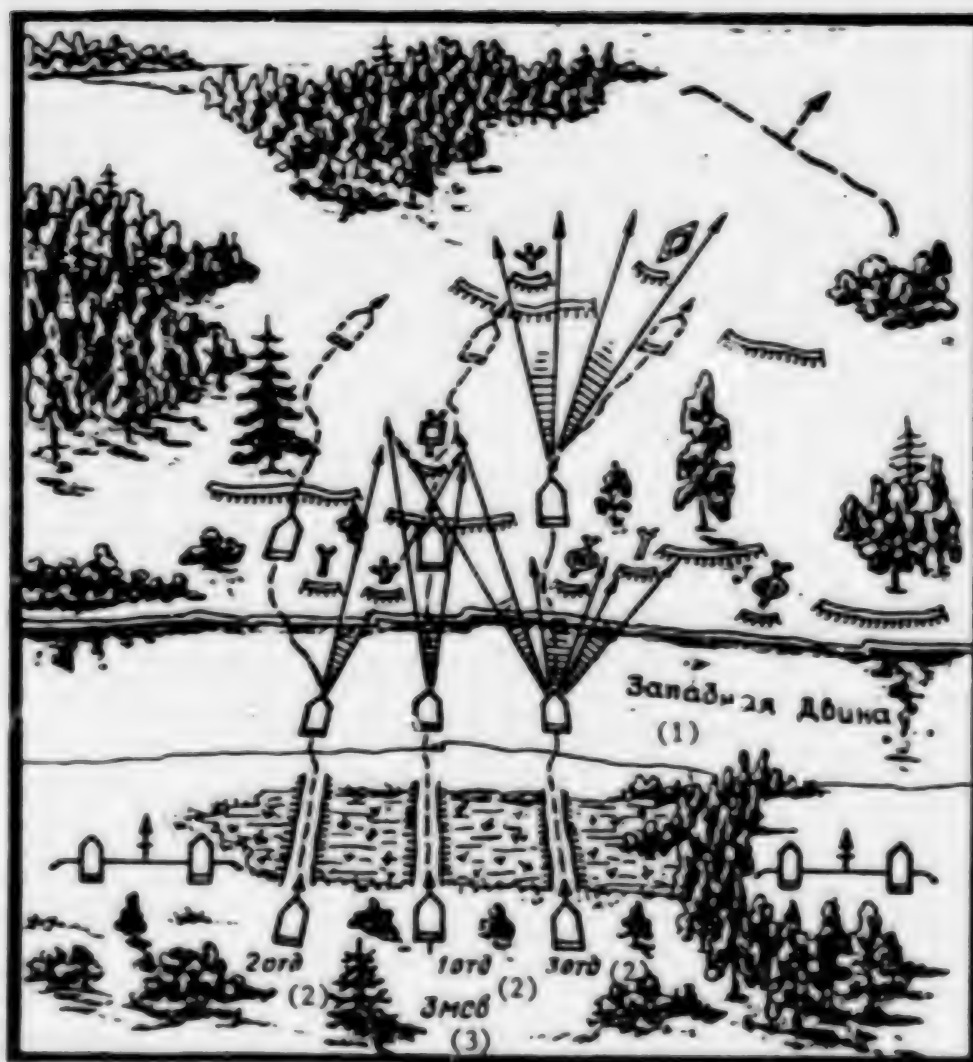
I will tell about my squad. It consists almost completely of experts of combat and political training. Driver-mechanic V. Pavel'yev and gunner-operator Private A. Simonovets are first-class specialists and all motorized riflemen are rated sportsmen and wearers of the VSK [military sports complex] badge. This permitted us to operate on the exercises clearly and competently and to employ the combat equipment with the greatest effectiveness.

The company reached the water's edge at high speed under the fire of the "enemy" who had occupied the defense on the opposite bank.

While still on reconnaissance, the platoon leader called my attention to a dangerous target--an "enemy" recoilless gun located in the area of a white rock with two bushes. It was directly opposite our BMP. I take a good look: where is it? There are many rocks, and from excitement it seems as though a "bazooka" section had dug in at each of them and is aiming namely at our vehicle. I get hold of myself. Coolness in battle is half the victory. The needed target appeared in the instrument. I see that the gunner-operator is nervously jerking the gun and "nudges" it just a little more to the right.

"Left 0-05, recoilless gun, on the move--fire!" I give the command.

Private Simonovets turned the gun and at almost the same second the fiery scatter of a machinegun burst spattered. "Here the dangerous 'bazooka' could be destroyed with the first burst," I think with hope. And I catch myself in the thought: in conducting lessons and drills with the trainees don't we sergeants often ponder over the deep meaning of the competition which has been initiated in the unit for hitting targets with the first rounds and with the first bursts? Certainly, not always.



- Key: 1. Western Dvina  
 2. Squad  
 3. 3d Motorized Rifle Platoon

I was confident of my gunner-operator: he accomplished any firing exercise excellently. But this time the burst which he fired was over. Evidently, the difficult situation had an effect: The sector for the assault crossing was covered by a smoke screen and hampered accurate aiming considerably. This was a lesson for us: It is necessary to learn to conduct fire namely under such conditions on regular drills, too.

The seconds of battle fly. The second machinegun burst moved down the dangerous target. The gunner shifted fire to another target--a grenade launcher.

At this time, on my command the driver-mechanic raised the wave deflector and the air intake tube. The vehicle entered the water at a speed of approximately 20 kilometers per hour. I cannot fail to recall how one day, when entering the water at a high speed, the wave deflector had not been raised on our BMP. The driver-mechanic

tried to accomplish this very simple operation several times--unsuccessfully. It was necessary to drive the vehicle to the bank and investigate what had happened. It turned out that one of the crew members had dropped a pencil stub in the control compartment and it had gotten stuck between the lever and the pull rod which opens the air valve. Thus, a hitch occurred on the water due to the carelessness of one soldier. It is unnecessary to say how this could have ended in actual combat.

After this unpleasant incident we began to follow more captiously cleanliness and order in all compartments of the vehicle.

/The most involved and difficult period of the assault crossing sets in when the BMP is afloat. First, it becomes not very mobile and is a convenient target for the enemy. Second, the crew has limited possibilities to conduct fire since the firing openings are closed so that water does not get inside. Only the gunner-operator conducts fire. Does this mean that at this time the BMP crew should reduce its combat activity? No, not in any case! For the gunner-operator has available a powerful cannon, machinegun, and PTUR [antitank missile]. If there is a master of fire behind the sight, he is able to use the vehicle's armament with maximum effectiveness. And here tremendous significance is acquired by high rates and accuracy of firing by means of which the temporary inaction of the other weapons of the squad which is behind the closed firing openings is made up/.

It is namely to a high rate of fire and its results that I tried to devote primary attention on all firing drills on the firing grounds. The gunner-operator, Private Simonovets, learned to accomplish the most difficult firing missions in the shortest possible times: to fire day and night accurately at stationary, bobbing, and moving targets, to adjust fire quickly, and to coordinate with adjacent crews.

The drills had an effect: during the assault crossing of the river he missed only once, when he fired at the first target. He hit the others with the first rounds and with the first machinegun bursts, forestalling the "enemy." On approaching the opposite bank, Simonovets brought the firing to the highest intensity and came to the aid of an adjacent crew in time when the strong current of the river turned the BMP, placing its side toward the defenders.

/You could touch the bank with the hand. The driver-mechanic, Private Pavel'yev, felt the tracks of the vehicle touch the ground. He immediately shifted to a lower gear and the BMP began to cross the rise confidently. In such cases, some driver-mechanics, especially young ones, do not always proceed correctly. The comparatively low speed afloat seems to dull their attention and they forget to engage the lower gear, and they increase the fuel feed at the moment that the tracks touch the ground. As a result, the BMP stops and its engine stalls. It is easy to knock out such a vehicle at the moment when it leaves the water, when aimed fire cannot be conducted against the "enemy" due to the gun's high angle of elevation. Perhaps it is difficult to find a more convenient target on the battlefield/....

And here is the BMP on the ground. We open the hatches of the firing openings without delay and begin firing. The power of the fire increased significantly. In trying to keep closer to the shell bursts of the supporting artillery, the crew and the BMP assault force concentrated fire on the remaining targets, not forgetting to fire toward the flanks, either, thereby helping the successful assault crossing of the river by those still afloat.

The attack was crowned by victory.

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### Antitank Missile Battery Training

Moscow ZNAMENOSETS in Russian No 11, Nov 81 (signed to press 22 Oct 81) p 10

[Article by Sr Sgt A. Suntsov, commander of antitank missile section: "Antitank Missiles Close the Gap"; passages enclosed in slantlines printed in boldface]

[Text] On the exercises "Zapad-81," operating on the side of the "South," our PTUR [antitank missile] battery participated in a strained defensive battle, repelled a mass attack of the "North's" tanks and BMP's [infantry combat vehicle], supported counterattacks, and covered the planned withdrawal of tank and motorized rifle sub-units. Thus, on one of the stages of the exercise the battery, being part of the antitank reserve, secured the limiting point of the flanks of the first-echelon strong points. It was not an easy mission. Its accomplishment required profound knowledge of the tactics of contemporary combat and firm skills in working on the equipment.

/In the course of reconnoitering the main firing line, I paid special attention to tank avenues of approach. Clarifying the combat mission, I thoroughly studied the terrain in the sector of fire, reference points assigned by the senior commander, places for the primary and alternate positions, the missions of the adjacent units, and the procedure for cooperation with them. I wrote down in a notebook the warning and identification signals and the readiness time for opening fire. After this, receiving the commander's permission, I walked over the route for the PTUR launchers to move up, inspected sectors negotiable with difficulty, noted possible routes to bypass them, and estimated the time necessary to occupy the OP [firing position] from the march/.

I then prepared a range card. I plotted with special care the reference points and the conventional signs of local objects, determined the distance and sight setting to them, and marked the dead space and maximum and minimum distances to the targets. The graphical combat document which was worked up in this manner helped me to game probable versions of the coming battle ahead of time.

With the onset of twilight the battery, having deployed in combat formation, occupied the primary firing positions. Immediately upon arriving, our section prepared the launcher for action.

/From the experience of preceding drills, each crew member knew that only the thorough preparation of fire ensures the destruction of the target with the first launching/. Together with the operator, Private First Class I. Blazhevich, and the driver-operator, Private N. Pavlov, we conducted the appropriate adjustment work and maintenance. First of all, we checked the missiles for their suitability. We inspected the packing and entry in the service logs, and then the external appearance to see that there were no dents, scratches, or deformations. With special care we checked the placement of the missiles on the guide rails and in the stowage,



the good working order of the electric launching circuits, and the reliability of the connection of the missile with the ground equipment.

Loading a live missile is an important moment. The excitement of those who, prior to this, worked with its substitute is understandable. However, even here, when bringing the missile to its finally armed form, the struggle to save time proceeded. Thus, on drills we worked out loading in the sequence where the driver gave to the launcher commander a missile with the cap of the board socket already removed. In this case, we gained several seconds in preparing the missile for placement on the guide rail. This loading procedure also showed its vital necessity on the exercise.

/Accomplishment of the mission as part of the antitank reserve by PTUR sections depends to a great extent on the correct selection and preparation of the firing position as well as on the skillful placement of the launcher on it/. Therefore, when occupying the firing position I devoted special attention to the conditions for observation and the conduct of fire, ensuring direct optical visibility of the target at maximum range (sight--trace--target), and to the possibility of using a remote control panel and the quality of the ground.

It was not so simple to observe these rules under the conditions of the forest-swamp terrain on which we had to operate. In order to ensure the stability of the launcher and exclude heeling, it was necessary to strengthen the soil with thick poles and sod. Under the conditions of an acute shortage of time, it turned out to be difficult to reduce the dead spaces to a minimum. However, we also coped with this task, organizing clear coordination with adjacent units and preparing the sites for the remote control panels ahead of time.

/It is no less important for tank destroyers to reliably conceal their disposition from enemy eyes until the decisive moments/. The ability to camouflage on the ground tells about the professional skill and maturity of the launcher commander. The battery commander constantly reminded us of the necessity to see our position in the combat formation from the attacking side. In order to ensure surprise fire to the maximum, we used terrain relief and organizational camouflage equipment as well as field expedients.

And finally, /the success of operations as part of the antitank reserve depends to a great extent on the section's readiness for the sudden and rapid change of position/. Therefore, I tried to select protected and convenient routes of approach which permitted occupying the firing position in short times and changing it in case of necessity. In addition, after a march over difficult dirt roads I called the attention of the driver, Private Pavlov, to the thorough check of the position of the louvers, power supply system, and charging the storage batteries.

The "enemy" rushed into the attack after a short fire preparation. The tanks moved at an acute angle to our position. The command for their destruction was heard in the interphone headset.

In order to get away from the PTUR's, the tanks tried to maneuver and took cover in the folds of the terrain. However, the maximum launching range permits the timely adjustment of the missile's control.

Launch! The rocket took off to meet the tank as a blazing point. The other sections also conducted accurate fire.

But the "enemy" was not stopped. He continues to attack stubbornly and launches air and artillery strikes. In the area of our motorized riflemen's strong points everything was blanketed by a dense screen of dust. In addition, the "hostile" tanks employed smoke. It became more difficult for the PTUR sections to conduct fire on them.

The battery commander made the decision to change firing positions. The most important moment arrived. It was important to forestall the attackers, meeting them on the exit from the smoked zone. The PTUR launchers moved out to the planned line at increased speed. The improved dirt road permitted leading the launchers in combat position.

"Enemy" tanks were to appear just at maximum launch range. The count proceeded by seconds. Much under these conditions depended on the section's ability to select quickly on the march and correctly occupy firing position and camouflage itself.

And here everything is ready. Accurate, destructive launches deprived the attackers of numerical advantage and supported the commitment of the counterattacking tank and BMP subunits which destroyed the "enemy" who had penetrated and restored the initial condition of our defensive position.

/From the experience of the exercises, we were convinced that the timely closing of a gap in the defense is an important and difficult mission. Success is furthered by excellent knowledge of the equipment, its skillful employment, the high state of the sections' coordination and discipline, and the men's good physical tempering/.

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#### Tank Unit Camouflage Measures

Moscow ZNAMENOSETS in Russian No 11, Nov 81 (signed to press 22 Oct 81) pp 11-12

[Article by Sgt A. Yemel'yanenko, tank commander: "And Do Not Forget About Camouflage At Night"; passages enclosed in slantlines printed in boldface]

[Text] On the "Zapad-81" exercises, both opposing sides--"North" and "South"--conducted reconnaissance actively, trying with all available means to obtain the data without which it is impossible to make a well-grounded decision, disclose the "enemy's" vulnerable places, exploit errors and, in the final analysis, win victory. We and our rivals faced the same mission: to conceal our disposition, maneuvers being accomplished, concepts, and intentions from "foreign eyes." To a large degree, this depended on careful camouflage.

There was a time when not all our men understood the importance of this type of combat support. A bitter lesson was learned one day by the crew in which driver-mechanic Private T. Kuz'min serves. At night, being on a defensive position, the soldier started the engine of the tank without permission. Despite the darkness, using radar equipment "enemy" reconnaissance intersected its location and the artillery immediately fired an artillery attack against the strong point.



/The company commander, Senior Lieutenant M. Vagin, making use of the incident, then told about the broad capabilities of contemporary reconnaissance. Today, he declared, in addition to visual observation, under conditions of limited visibility the probable enemy can study the terrain and local objects using night vision instruments, radar, television instruments, sound locators, and so forth (see figure). And examples from the history of the Great Patriotic War show that night is especially favorable for the organization of search and ambushes to capture prisoners for interrogation.

Considering this, on the "Zapad-81" exercises each man in the company tried to ensure secrecy of actions through the skillful use of the terrain and organizational equipment as well as field expedients and strict observance of military discipline/.

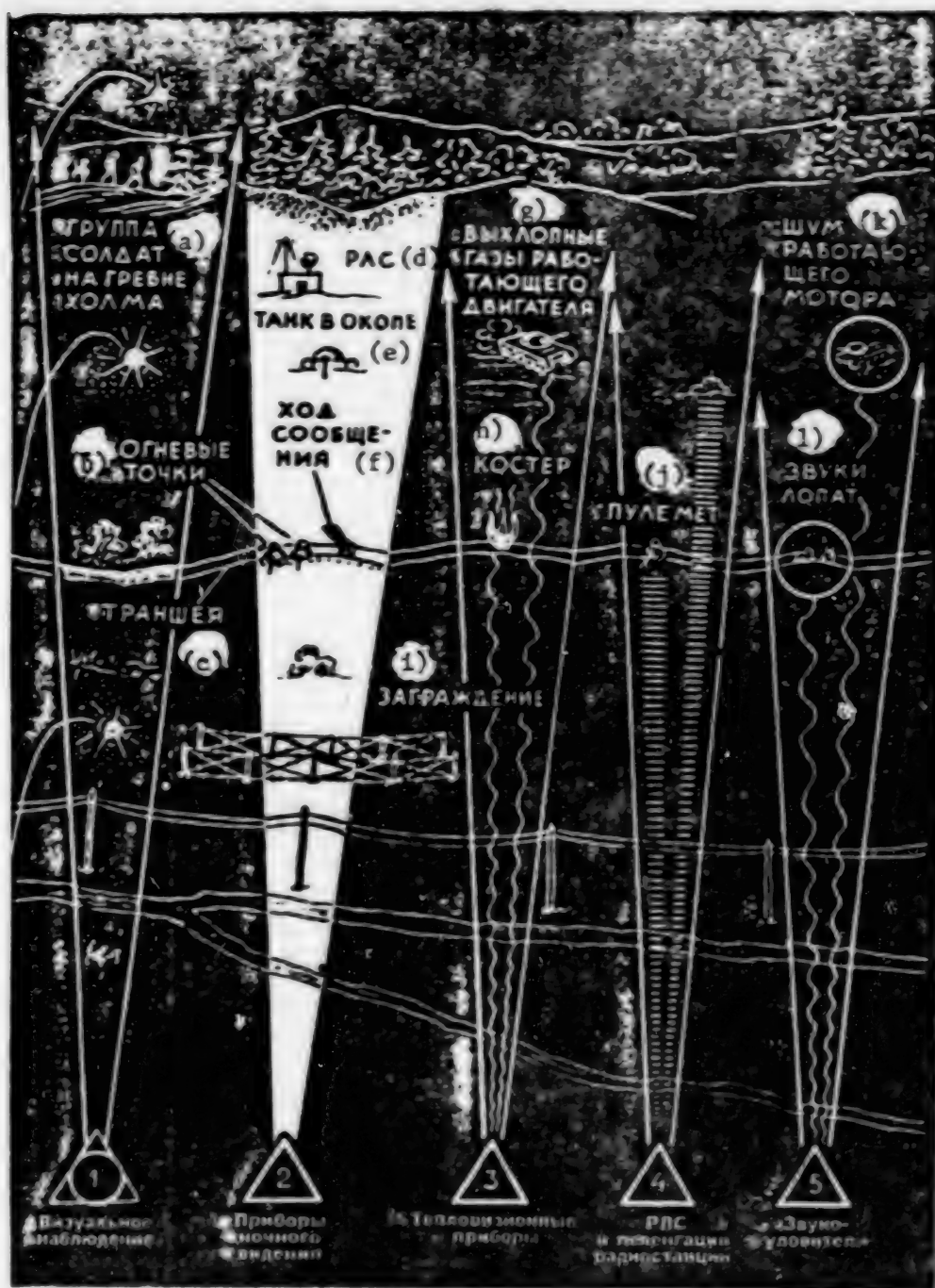
On one of the stages our subunit received the mission to execute a march at night from the departure area to the line for launching the attack and to launch a decisive attack on the common signal. The leader of a tank platoon, Lieutenant V. Solov'yev, in issuing his order called attention to the strict observance of blackout measures and radio discipline. Thus, on the march communication equipment was to operate only for reception, and light signals were established to transmit the necessary commands. At halts, before opening the tank hatch it is necessary to turn off all dome lights for interior illumination. If the crews remain in the vehicles, do not forget to close the hoods on the sights.

The march was to be executed using night vision instruments (TVN)[combat vehicle driver's binocular infrared periscope]. However, when approaching the "enemy's" FEBA [forward edge of the battle area] to a certain distance their further use was permitted only for the driver-mechanic of the commander's vehicle on which a non-illuminating night instrument had been installed.

"Why all these precautions?" asked driver-mechanic Private O. Shlyakhtovich. "For the noise of the tank engines can be heard for several kilometers anyway."

Lieutenant Solov'yev explained that the subunit's moving out would take place under the cover of artillery fire and the "enemy" would not hear the roar of the engines. However, /measures to ensure secrecy of our operations at night cannot be limited to blackout and sound damping alone. Reconnaissance has many technical means which are continuously used at full power/.

The crews began to prepare the combat equipment for the night march. The driver-mechanic of our tank, Private Shlyakhtovich, inspected the TVN and adjusted its headlight and the gunner, Private First Class Shurin, checked the operation of the sight in the "Night" mode. We paid special attention to the good working order of the directional gyro. If, when moving in a column, we can orient ourselves on the vehicle in front without difficulty, after passing the line of deployment the assigned direction of attack can be maintained only with the use of this instrument.



- Key:
- |  |                                      |
|--|--------------------------------------|
| 1. Visual observation                            | d. Radar                             |
| 2. Night vision instruments                      | e. Dug-in tank                       |
| 3. Television instruments                        | f. Communication trench              |
| 4. Radar and direction finding of radio stations | g. Exhaust gases of operating engine |
| 5. Sound locators                                | h. Campfire                          |
| a. Group of soldiers on crest of hill            | i. Obstacle                          |
| b. Weapon emplacements                           | j. Machinegun                        |
| c. Trench  | k. Noise of operating engine         |
|  | l. Sounds of shovels                 |

We used smoke to camouflage moving out to the positions. At first, some people doubted: "Why lay down a smoke screen at night?" But later they understood: smoke not only hinders observation through night vision instruments, but it also reduces considerably the effectiveness of searching using equipment.

We did not forget that /smoke as well as fog, rain, and dust only hinder the conduct of reconnaissance, while the relief of broken terrain and masks (forests, brush, structures, and so forth) not only hinder visual observation but also serve as reliable protection against technical means of reconnaissance/. Therefore, the route for moving out to the positions was selected with consideration of the protective properties of the terrain and local objects.

At the indicated time, the subunit arrived at the assigned area and began the improvement and, simultaneously, the camouflage of the positions. Before beginning to dig a pit for the tank, our crew set up a vertical mask of posts and branches (wattle). It reliably concealed our actions from "enemy" observation instruments. Then we cleared approach routes and prepared the tank for action. Using simple camouflage of branches and sod the turret assumed the appearance of a small hill. Shining metal parts and safety glass not used for observation were camouflaged. In order to be covered from aerial observation, an organizational camouflage net was stretched over the position and tree branches were placed on it randomly.

It was very important to deceive the "enemy" relative to our true location. For this, on order of the senior commander a specially detailed group of soldiers was engaged in setting up dummy positions. A dummy strong point was designated by the simulation of various give-away signs: the light of headlights, signal and illumination flares, and the lights of cigarettes.

...And the training battled broke out early in the morning. The actions of our subunit were evaluated highly by the senior commander. He stressed that /the successful accomplishment of the mission on the exercises was furthered by the surprise of the attack which was attained by the secrecy of the tankers' actions both day and night/.

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#### Pontoon Bridge Unit Training

Moscow ZNAMENOSETS in Russian No 11, Nov 81 (signed to press 22 Oct 81) p 12

[Article by Sgt S. Chausov, squad leader: "Success Comes Easy to the Persistent"]

[Text] For us, pontoneers, the "Zapad-81" exercises were an important test. They enriched the soldiers and sergeants with great experience in operations approximating a situation in contemporary battle. Generalization of this experience still requires much time. I should now like to dwell on only the most important operations in laying a bridge which were accomplished by our company personnel.

Success did not come to the pontoneers at once. Stubborn drills preceded the exercises. The men worked with enthusiasm. In accomplishing the standards they competed with one another, section with section, squad with squad. The mission was to reduce the time to lay a bridge to the minimum.

On drills the men of the platoon where the duties of leader are accomplished by Sergeant V. Bents operated especially smoothly. I should like to tell about this in greater detail.

Here, for example, is how a lesson was organized on the subject, "Checking the Good Working Order of the Main Units of a Pontoon Bridge Park." To provide great clarity, the sergeant placed a vehicle with a river section not far from the water's edge. He reminded his subordinates that in the departure area they should remove the travelling rings which fasten the sections in the march position. Then he gave the command to drop the section in the water and to leave it moored to the bank in the open form. And only after this did the soldiers begin to check the working order and adjustment of the support clamp. It immediately became clear why the leader ordered dropping the section--it was much more convenient to accomplish the inspection and adjustment without it.

The sergeant assigned the check of free play of the upper hook and the tension of the spring to Private R. Mamyan. In performing the operations, the soldier discovered that the free play at the end of the rear support exceeded the permissible amount. He was unable to eliminate the free play independently. The commander came to his aid. They removed the cotter pin, removed the upper hook and, selecting a washer, they placed it in lieu of the worn one.

In the course of the lesson, Sergeant Bents taught the pontoneers to eliminate malfunctions of the lower coupling device. The working out of this operation was not selected by chance. From his own experience, the leader of the lesson knew that the survivability of the bridge depends on the reliability of the linking of the sections. Here, he also directed the attention of the soldiers to what at first glance were insignificant details.

"If, for example, a bolt which fastens a plank appears near a locking pin," the sergeant explained, "this is already a precondition for a malfunction: the bolt may lose the cotter pin and weaken. Then, the coupling device which seems closed will assume a position where the pin does not lock it. Consequently, the bridge sections will not be locked and the leading vehicle will find itself in the water."

When laying a floating bridge, much also depends on the clear work of the boat motor operators. If the specialist does not calculate the moment of engaging the reverse gear or measurement by eye lets him down, the boat will strike a pontoon. And if reverse is engaged too early, the boat will not reach the bridge and it may be swept aside by the current. In short, there are many specific fine points here. The experienced specialist, Sergeant O. Kalla, reminded his subordinates about some of them. At the same time, he tried to develop in the men skills in determining distances by eye.

On order of the sergeant, one soldier moved a measuring rod along the bank; the motor operators stood with their backs to it so as not to count the number of steps that the soldier took. After setting the rod at a new place, the command "About face!" followed. And the trainees in turn reported to the commander the distance to the rod. At first, all had different results. But after several drills they learned to determine the distance to the target more accurately.



Practical drills were conducted at the end of the lesson. First, the sergeant sat in the boat and showed how to approach the bridge. Then the soldiers began to perform this operation.

Not all the men were able to drive the boat the first time. For example, the motor operator Private A. Kryukov did not have sufficient experience. He recently arrived from a training subunit and had poor practical skills. But after a critique of his errors Kryukov was already operating confidently.

Intense drills helped us to cope successfully with the missions assigned on the "Zapad-81" exercises. We received an excellent grade for actions in setting up and maintaining a crossing. High ability was demonstrated by the subordinates of Sergeants V. Bents and O. Kalla. Their achievements are not only a reference point for others, but also a reliable foundation for successes of the entire subunit. We confirmed the title of excellent company in the year of the 26th CPSU Congress.

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## GROUND FORCES

### BTR-60P ARMORED PERSONNEL CARRIER DESCRIBED

Moscow ZA RULEM in Russian No 9, Sep 81 (signed to press 28 Jul 81) pp 10-11

[Article by engineer L. Shugurov: "For the Future Soldier: the BTR-60P"]

[Text] Usually articles under this heading are aimed directly at young people in DOSAAF schools who are preparing for military service. However, there are some designs which contain so many original and advanced engineering techniques that young soldiers must study them and everyone who has close contact with motor vehicle equipment should have a great intellectual interest in becoming acquainted with them. This time we chose the BTR-60P, an outstanding vehicle, original both in the grouping and organization of its major assemblies.

In spite of those special tasks for which a wheeled armored personnel carrier may be intended (delivering motorized riflemen to the battlefield, reconnaissance, protection of columns and objects), it invariably remains a motor vehicle. What is really needed is an off-the-road armored vehicle, a machine with increased mobility, since under modern conditions for conducting battle it is important to provide the troops with great mobility and make it possible for them to carry out actions at a high level of intensity. This is why a modern armored personnel carrier must negotiate land and water obstacles, be high-speed and mobile, travel over the most diverse soils, and provide constant traction.

The BTR-60P answers all of these requirements. Wheel reducers and the independent suspension of all wheels give it a large road clearance. The armored personnel carrier successfully crosses ditches, vertical obstacles, and also rivers or lakes. Its hermetically-sealed frame creates sufficient displacement, and a water jet propeller (hydro-jet engine) permits it to cross water at a speed of up to 10 km per hour. Rudders, arranged so that they seem to be in the spray which the water jet propeller throws, turn the vehicle when it is in the water.

An adequate power reserve (18 horsepower per ton of loaded weight) allows the personnel carrier to develop a high (up to 80 km per hour) highway speed, confidently negotiate protracted climbs, and attack across sandy, muddy, and snow-covered sectors. Four gears in the transmission, two in the distributor, and the versatility of a lower-valve engine give the vehicle a broad range of travel speeds. Two pairs of steerable front wheels enable this fairly long (it can be compared for this statistic, for example, to the MAZ-500A) and wide vehicle to be turned around within a 12-meter radius.

Great force must be applied to the steering wheel to turn a personnel carrier weighing about ten tons and equipped with very wide tires as well. Power steering equipment has been installed on the BTR-60P to help the driver.

In order to move over soils of the most diverse supporting capacity--from stony to sandy--the BTR-60P has been equipped with a centralized system for changing the tire air pressure from 2.5 to 0.5 kg per square centimeter. This means that the total tire tread surface can be increased from 580 to 1,300 square centimeters, i.e., by 2.2 times. Consequently, because of the decrease in air pressure, the unit pressure of the tires on the ground drops from 2.16 to 0.96 kg per square centimeter or, in other words, it approximates the unit pressure created on the ground by tanks. In addition, this system allows the armored personnel carrier to continue moving with damaged tires (if the compressor is in a condition to compensate for air leakage).

Tread width and the number of wheels are important in increasing the mobility of the vehicle on loose soils. The same tread on all wheels when moving in a straight line causes a minimum loss of power when pressing down soil and forming a track. The large tread width (2,360 mm) and road clearance (475 mm) allow the armored personnel carrier to follow tracked vehicles along the path made by them in deep mud or snow.

The fact that the BTR-60P has eight wheels on which its weight is distributed helps in lowering the unit pressure on the ground. Additionally, all wheels have been made driving ones, i.e., under difficult travel conditions each of them can deliver traction. However, sometimes on bad roads one of the wheels may begin to skid. In this event the differential "paralyzes" the wheel paired to it on the other side. Gearless, self-locking differentials have been used in the BTR-60P. First of all they permit only a small amount of reciprocal wheel slippage and they then lock one wheel, allowing the transfer of torque to both wheels.

One feature of the BTR-60P is two GAZ-40P carburetor engines, similar to GAZ-12 motors, and two transmission gear boxes. The operation of the carburetors and gear shift has been synchronized by special devices. Such a design is more complex but then it guarantees increased reliability to the armored personnel carrier. If one motor goes out of operation, the vehicle maintains mobility. To be more exact, the right engine drives the first and third pairs of wheels and the left--the second and fourth.

Such a transmission system and two-engine arrangement in the rear part of the vehicle are fairly rare in the motor vehicle construction business. Effectively combined with other design techniques, they provide the BTR-60P with high operational indicators.

As is usual for an armored personnel carrier, the vehicle has a supporting frame welded from armor plate and is equipped with weapons and special equipment. The three basic modifications of the BTR-60P differ in the design of the armored body and its weaponry. All of them are shown in the illustrations. [Illustrations not reproduced]

Thus, you have now met one of the basic wheeled armored personnel carriers in the armament of the Soviet Army.

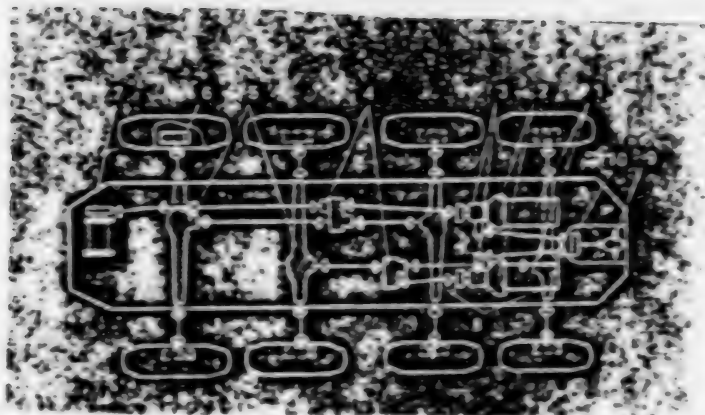


Figure 1. Diagram of the BTR-60P Transmission

Key:

- |                            |                                 |
|----------------------------|---------------------------------|
| 1. Engine                  | 7. Winch                        |
| 2. Clutch                  | 8. Driving axle                 |
| 3. Transmission gear box   | 9. Water jet propeller          |
| 4. Distributor             | 10. Water jet propeller reducer |
| 5. Controlled driving axle |                                 |
| 6. Wheel reducer           |                                 |

Specifications of the BTR-60P--

General information: crew--two people; landing force--14 people; loaded weight--9,800 kg; weight equipped--8,200 kg; highway speed--80 km per hour, speed in the water--9-10 km per hour; maximum climbable gradient on firm ground--30 degrees; width of ditch which can be crossed--2.0 meters; fuel duration (on the highway)--500 km; fuel capacity--290 liters.

Dimensions: length--7,200 mm; width--2,906 mm; height--2,105 mm; track--2,360 mm; road clearance--475 mm; tire size--13.00-18 inches.

Engines: number of engines--2; number of cylinders--6, total--12; work volume--3,485 cubic meters, total--6970 cubic meters; compression ratio--6.7; valve motion gear--SV; power--90 horsepower, total--180 horsepower.

Transmission: wheel formula--8x8; number of gears--8; inter-wheel differentials--self-locking, gearless; constant-velocity universal joint in steerable wheel drive--ball.

Steering: braking--with a service brake on all wheels, having hydraulic drive and pneumatic amplifier; wheel brakes--drum, hermetic; steering system--hydraulic actuator on the two front pairs of wheels.



Underframe: suspension--independent torsion-bar for all wheels; shock absorbers--hydraulic telescopic; propeller for negotiating water obstacles--water-jet; a centralized system for changing tire air pressure.

Armament: 7.62 mm caliber SGMB machine gun; RPG-7 grenade launcher; two AK-47 submachine guns.

Equipment: R-113 radio set; instruments for daytime observation and night vision; winch with a traction of 4,500 kg; splash panel; bilge pump; pre-start heating device; heater.

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CSO: 1801/038

## GROUND FORCES

### BIOGRAPHICAL INFORMATION ON MAJ GEN V. A. ACHALOV

Moscow IZVESTIYA in Russian 11 Nov 81 p 3

[Article by V. Zakhar'ko: "General, Son of a Soldier" under the general rubric "Life in the Soviet Armed Forces"]



[Text] As a paratrooper the General has learned something about the nature of the local skies. So, on looking through the window at clouds illuminated by the sun, he declared: "It will rain today.

"And this is a day scheduled for live shelling practice. The rain will worsen the visibility. But this is all for the better."

He did not explain why this was for the better. Apparently, he decided that no explanation was needed: if you learn how to fire in poor weather, you will not miss the target in clear weather. While visiting him in his office, where Suvorov's portrait, too, hangs among the portraits of the great military captains, I unconsciously expected Achalov's comments on the activities of the paratroops to include the traditional reference of the military to Suvorov's well-known dictum, "Rigorous training makes for easy combat," but he did not mention it even once. Being accustomed to expect a fast response and understanding

from others, he speaks on any topic tersely and without elaborating the obvious. Whether listening or answering, he looks the speaker directly in the eye, as if inviting mutual trust.

When we first met, he asked me: "If it's no secret, who sent you? I was instructed to receive you and am doing so. But I still believe that you should interview someone more deserving."

The initiative was, as the saying goes, personal, and I conceived the idea of the interview suddenly upon seeing fairly young people wearing uniforms with the insignia of majors and lieutenant colonels and walking unhurriedly on a Moscow boulevard. It was then that I suddenly wondered whether there already exist generals who had been born after the [World War II] victory. And if yes, who are they and what are they like?

The present-day servicemen and officers are written about in the newspapers and shown on film and TV screens. They are our sons, younger brothers, relatives, or close friends. It is precisely in a soldier's or officer's uniform that we most often visualize the abstract and concrete image of the present-day warrior guarding the Fatherland. The entire nation loves the senior commanders and military chiefs who passed through the wartime trials by fire. But as for the growing number of their successors, we know less about them than is desirable or sometimes simply necessary. There is no doubt that these successors are worthy of their task, but who are they and how and for what have they been trained? As time passed, I felt an increasing wish to meet a general who first saw the light of day after the Great Patriotic War, if any such already exist. The sources possessing such information understood my interest. The following day I traveled to the region of service of Guards Major General V. A. Achalov, who was born on 13 November 1945.

"As you can see, Vladislav Alekseyevich, there is nothing secret about it."

He admitted smilingly that he still is not accustomed to a general's uniform although he is now wearing it for the second year. His looks are in accord with his age. He has a large round face lightly imprinted with the mood of the instant. On the days on which I could see Achalov that face was most often calm and amiable, but sometimes thoughtful, firm, or even severe--and then it turned out that a glance by the General could chill the soul of the person whom he was giving a dressing-down in a level and matter-of-fact voice. He is of medium height, broad-shouldered, and his closely fitting uniform ephasizes his compact and firm figure.

Both at his headquarters office and at home he keeps heavy dumbbells for other than decorative purposes, one should think. Despite his responsible position Achalov has not forgotten the road to the stadium, the gym room, the swimming pool, and the skating rink. He knows a great deal of what should be known by the rank-and-file paratrooper. He has direct acquaintance with karate, too, as well as with knife-throwing and the use of a sapper's shovel. He has made dozens of parachute jumps.

But there used to be a time--the most unpleasant period remembered by Achalov--when physicians doubted whether he could remain a paratroop combat commander. For a few months jumps were out of the question as he had to learn walking all over again, first with the aid of crutches and then with that of a cane. However, this misfortune did not affect his behavior; he suffered silently. He has been learning self-control ever since childhood when he often forced himself to do what he did not enjoy but had to be done.

One day Achalov happened to declare: "Let me show you my birthplace." He led me toward the huge map of Europe, which occupied nearly an entire wall. "There, 80 km north of Kazan', surrounded by Tatar settlements, stands our village Atamysh, established by Russian peasants as far back as in the era of Ivan the Terrible."

He is the oldest of six children, three brothers and three sisters. As the elder son, he was expected from childhood on to help his mother and father--a first-category war veteran. He wanted to have all that any normal child wanted, but he allowed himself the right to play and read only after the house was heated, the younger children fed and clothed, and the roar and hubbub of hungry livestock and poultry in the adjacent livestock pen were stilled. The 10-year [school] was located in another village, which was linked by a bad road which was 8 kilometers long. Achalov would walk to and from school directly across the terrain, a distance of 6 kilometers. Rain, impassable mud, snow, frost--go he must. It was then, in his early youth, he said, that he learned endurance. One can hardly be mistaken in thinking that it was then that Achalov had developed those personal qualities that were later mentioned in his military certificates: seriousness, conscientiousness, strength of purpose, a demanding attitude toward work and toward learning. As a rule, such energetic characters can accomplish a lot in any walk of life. So then why did he pick the army?

By nature an honest and candid man, in his talks with me Vladislav Alekseyevich himself tried to determine what direct or indirect cause influenced him to select the military profession. His father? Hardly, considering that the father's military past should have prompted the son toward some peaceful civilian occupation. Aleksey Afanas'yevich returned from the front prematurely, in 1943, having sustained severe wounds of the hand, neck, and leg--some [shell] fragments remain embedded in his body. He did not enjoy talking about the war. If he did reminisce about it, then it was mostly about its hardships, which is hardly attractive to a child's mind and heart. It is possible, however, that the boy's pain at seeing his father's wounds persisted in his consciousness and accounted for his attraction toward the army. But of course, an added factor was the books and films showing the heroism of the Soviet Army--the bearer of Russian glory and honor.

"When speculating about the future with my childhood friends, I most often imagined myself wearing a military uniform. Was it a premonition of destiny? But I do not believe in destiny, since belief in fate requires forgetting one's own interests. But as for me, my interest in the army had steadily grown. Last year I went on a trip to show myself in a General's uniform to my father--my mother died 10 years ago. I reported to the old soldier, my dearest commander, changed clothing, and walked toward the brook. Nothing stimulates my memories



as much as the smells of that brook. All along there are flood-plain meadows, forests changing into the taiga. Rare beauty! I enjoyed it. Then suddenly I caught myself thinking that I was viewing all that beauty no longer with the eyes of a man who had spent there his childhood and youth but with those of a trained paratrooper. The fairytale landscape suddenly turned into a moderately dissected terrain and I discerned three or four sites for landing a large paratroop force. It would be best to expand the captured bridgehead in the direction of the forest, while more attention to the defense should be paid in the direction of the meadow....I started to curse myself for switching from a romantic mood to a military-topographic attitude, but then I calmed myself thinking that since I am a military man, I feel and think like one. It had been on the banks of that rivulet that, as I grew up, my goal in life became clearer."

In 1963 he entered the Kazan' tank school. Everything was novel to him--the barracks, clothing, food, the drill square, the exercises in equipment use, tactics, and firing, the tank proving ground, and other proving grounds, and orders and commands that must be obeyed unthinkingly. All these experiences are difficult to all novices, boring to some, but to him they were interesting. Others standing near a tank's exhaust might experience vertigo but to him the smell of spent oil was almost as pleasant as the fragrance of a perfume.

The military regulations placed no restrictions on the main thing--the freedom of thinking and showing and satisfying one's curiosity. He realized that a present-day officer who lacks broad knowledge is like a tank without weapons. To this day he still follows an order issued to himself: no wasting of leisure time on idleness. He got excellent grades for each course. It was there that he became a party member. His graduation certificate states that he "displays superior organizing skills. May lead by personal example in fulfilling any task posed." Having left the school was a junior lieutenant in 1966, he took command of a platoon far to the west of Kazan' and raised its rating to "excellent." Three years later he became a full lieutenant and was entrusted with a company. His evaluation says: "He is thoroughly familiar with the nature of modern combat. His company has been prepared for carrying out its combat task. Deserves assignment for training to the Military Academy of the Armored Troops."

In 1970 he enrolled at the Academy. Moscow abounds in everything, including quite a few temptations. But Achalov's old order to himself not to waste his time in idleness remained in force. Here is an excerpt from the notice of appointment to the post of a commanding officer of a tank battalion: "He [Achalov] correctly applies his excellent knowledge of theory to practical work. He has provided considerable assistance to the battalion commander in planning and conducting combat and political training. He himself has conducted exercises with the battalion headquarters, and the company, platoon, and subunit commanders at a high methodological level." Promotion to captain came next. The graduation certificate of V. Achalov stresses that he is: "Capable of rapidly assessing a complex situation, making a justified decision and having it carried out." In the summer of 1973 he completed the Academy and decided to apply for posting to the Far East, to which he was drawn.

But unexpectedly he was summoned by the medical commission. The reason was no secret: it was necessary to decide whether Achalov's state of health warranted

service in the paratroops. The news was surprising and even more disappointing. After all, he could not imagine himself away from his tanks. Knowing his own health better than the physicians, he had hoped that he did not have to be summoned to the commission, that being tested in a rotating centrifuge would be enough. After he took a seat in that centrifuge and went through the test, the doctor declared him fit, or so it seemed to him at the moment. This was followed by a summons to the airborne commander himself, who was brief, declaring that paratroop units were being provided with powerful new armor and therefore officers with tank experience were needed. Parachuting was not such a scary thing--once you conquer your fear of the first jump, you are all right.

The commander ended: "You're free to refuse, but I repeat we need you."

A conflict between desire and necessity did not break out within Achalov. The captain consented and soon departed southward to take over the duties of Deputy Commander of a Paratroop Training unit. He taught others and he taught himself. He enjoyed parachute jumping. He also learned on the ground what he did not know before, and what he had already known he applied to the details new to him. In the spring of 1974 Achalov was promoted to a major and appointed commander of this unit.

Now he considers himself part and parcel of the airborne infantry and is proud of its uniform, emblem, and insignia. He is imbued with that special paratroop spirit born of the teamwork of men who, regardless of their rank are all equal before the parachute. Achalov studies the wartime and postwar experience of the paratroops, investigates the principles for their possible utilization and the present-day factors affecting the success of operational and strategic operations in the deep rear of the foe.

His name wins increasing prestige among professional paratroopers, and in May 1975 he becomes the commander of a paratroop regiment. He skillfully directs paratroop landings day and night in forests and marshes, in exercises designed to capture bridges, river crossings, railroad hubs, transportation hubs, airfields, populated areas, and other objects. In a year he becomes lieutenant colonel. The certificate summing up his 2 years in command of the paratroop regiment concludes: "Equal to his duties. A promising officer deserving advancement to a higher post."

And soon he was advanced to a higher post and posted to Moscow. His arrival in the nation's capital coincided with a time of personal testing which justified former paratroopers in speaking of Achalov's personal bravery.

Naturally, a paratrooper's occupation entails risks and danger, but what had happened then had nothing to do with parachute jumping accidents--which, incidentally, are rare in the Paratroop Corps--but rather was a ground accident or more exactly a road accident. At a Moscow street intersection the Volga carrying Achalov suddenly confronted a ZIL-130 truck carrying concrete slabs. The driver had no time to brake and there was a collision. The doctors found that the right hip, leg, and kneecap were fractured. Intricate operations lasting several hours each were performed. The leg was put in traction with a special device. To assure that the bone fragments would grow together properly a

half-meter chromium-plated rod was inserted in the bone marrow. Later it was replaced with pins. Quite a few weeks passed before the patient could wiggle his toes and learn to walk on crutches while still carrying metal in his legs. But the paratroopers began to talk of Achalov's bravery much later still when, after parting with the crutches, cane, and metal pins, and on passing a course of ground-based training, he somehow got the doctors to permit him to do a parachute jump. He landed on his left foot, fearing to land on his right. He still continues to land on his left foot when jumping. Vladislav Alekseyevich jokes: "I have become reconciled to my reflex action. When waking in the morning I get up on my left foot first. But this only puts me in a more cheerful mood." I saw him in a swimming pool; the entire right part of his body is deeply scarred.

He gets up early and returns home late. He spends all his time among the troops, where the commander's duty is to remain in a state of constant combat preparedness. So now today is a day of shelling practice with real ammunition, from weapons which have already many times been parachuted from aircraft. The rain is worsening the visibility, but that is all for the better....One evening when circumstances kept him long in his office, he wistfully observed that the time until his son reaches the age of conscription might pass all too rapidly for him. "He's now 6 years old. When I leave for work, he still is asleep; and when I return, he's already asleep." It is a good thing that Larisa Pavlovna, a native Muscovite, does not always do a full day's work: she teaches higher mathematics at a local institute and has a Candidate of Mathematical Sciences degree. She patiently endures all the discomforts and hardships of a nomadic life--the couple has not lived more than 2 years in any place. The car accident was followed by another relocation. At his new post Achalov was promoted to a colonel ahead of schedule. Thereupon, the range of his tasks and duties became still broader. He fulfilled them competently, too, so that in 1980 he was promoted to the rank of major general.

I had quite a few conversations with his officer staff and subordinates. They all agree that Achalov's rather rapid rise in rank was due to his competence, energy, and diligence. We shall refrain from such adjectives as "a born commander," "gifted," "talented," because in a military man such abilities can reveal themselves and be discovered only in the event of a war. We do not want war, but we should always be ready for it. That is why our glory-covered, gray-haired marshals and admirals are carefully raising their successors who would be capable any day or night to mobilize regiments, divisions, and units in the defense of the Homeland.

It remains to be pointed out that Vladislav Alekseyevich Achalov is not the youngest general in the Soviet Army.

1386  
CSO: 1801/023

## NAVAL FORCES

### SUBMARINE TRAINING AND RELATED ACTIVITIES

#### Psychological Training Discussed

Moscow KRASNAYA ZVEZDA in Russian 2 Sep 81 p 2

[Article by Capt 2d Rank I. Litvinenko: "In a Critical Situation"]

[Text] Remarks on creating combat tension during exercises and drills.

The sailor's workday at the base is tightly packed. But still it must not be forgotten that only at sea, especially on an extended cruise, is it possible actually to polish up the sailors' combat skill, to harden their resolve, to bring their combat morale up to the highest limits. Incidentally, it is precisely during sailing that these limits can be determined with accuracy.

Tropic heat or arctic cold, actual rocking and pitching during a storm, continuously operating mechanisms and systems, the actual noise of a target's propellers, and the tense cruising experience as a whole create that unique environment that cannot be simulated ashore in the most modern classes and laboratories. The stern elements add their bit to the battle tension created with training targets. Sailing tests people in all parameters.

One fairly recent winter cruise is recalled. It was extraordinarily fraught with complicated tasks and it demanded full exertion of the submariners' spirit and physical effort. Once political worker Capt-Lt A. Khmelenko said: "People will soon begin to drop on their feet from fatigue." How could I answer him? It is necessary to hold out!

For several hours on end we had to sail at periscope depth. It was in the dead of night, with no visibility, and we were relying on electronic observation. The ship was rocking quite a bit. No matter where I looked in the periscope--it was pitch dark, sheer darkness. Suddenly I felt the rocking cease. Immediately I asked for bathometer depth data. "The depth is 9 meters," came the report. Therefore, we were at periscope depth. But the storm could not have subsided so suddenly. Executive officer Capt-Lt V. Shevchuk requested depth data from the fore and aft compartment watches.

In 5 or 6 interminably long seconds the report was heard from the first compartment. The depth exceeded by several times that which had been reported at the middle post.



Extreme measures had to be taken. The crew acted with precision and coordination. The petty officer in charge of the bilge crew, CPO S. Seykin, instantaneously made all the necessary manipulations.

Then we carefully made out reports on what had happened. The watches of the fore and aft compartments had been required to report changes in depth regularly as shown on their instruments. During ordinary dives, including rapid ones, no hesitation of any kind had occurred in reporting, but here, in this particular case, for which purpose these duplicating reports had been required, the ship's organization had sprung a leak.

This episode was remarkable for the fact that, according to all the traditional indicators, our crew had been well trained. But we, the ship's officers, and I personally, its commander, somehow had let a most important indicator slip from view, which, unfortunately, is not always considered in official documents: the volitional qualities of the sailors, their psychological state. The people actually were very tired, and they had had to endure excessive duty loads. But indeed, in real battle, duty loads are always excessive.

We recalled at the critique an episode from the combat action of Guards Red Banner Submarine S-56. For several hours in a row the Fascist escorts had been dropping depth charges at it, and most of the instruments and mechanisms had ceased functioning and the submariners were suffocating from lack of oxygen. But they continued to fight furiously for the life of their ship. When, at the tensest moment, submarine commander Capt 2d Rank G. Shchedrin ordered the communists to remain on watch and authorized all the others to rest, reports came from the compartments, one after the other, that everyone was standing his watch, and those who were not party members asked to be considered communists. The submariners stood their ground, and their ship continued to battle the Fascists.

It appears that there are limits of physical possibilities that are determined by science, but the reserves of ideological hardening and endurance, courage and heroism and the selflessness of our people, I think, for all that, are limitless. These qualities must be formed daily, taking into account the demands of pedagogy and psychology, the whole complex of party and political work, and the ship's whole way of life.

After the winter cruise that was mentioned, the party and Komsomol organizations of our ship began to act much more energetically and to conduct the educational work of officers and seagoing warrant officers with greater purposefulness. At sea we have achieved a greater intensity of training with a system of prepared complicated situations. Monitoring the conduct of watches has been intensified. It goes without saying that this has introduced a well-known tenseness into the workdays of cruises, which already were not easy. But results were produced. The crew's combat coordination was strengthened from cruise to cruise.

A standard is needed for everything, of course. A shortsighted commander who understands poorly the essence of true combat tenseness gets carried away at times by training situations. Monotonous appeals for greater effort and an injection of nervousness into the simplest situations leads, as a rule, to a reverse effect. A psychological defense develops, a slump in efficiency sets in, and reactions are dulled.

Once a young commander was praised because for long weeks during a cruise the lion's share of his crew's time was spent in a regime of maximum duty load. This "achievement" provokes perplexity, to put it mildly, on the part of experienced commanders. They interpret such a regime as inadmissible. One need not fear short-term, carefully thought out maximum duty loads. What is more, they should be planned.

After each such overload, after overcoming maximum difficulties, sailors experience an astonishing upsurge, an exceptional feeling of cohesion is engendered in the crew, a feeling of absolute confidence in their strength, such as is required for achieving victory in battle.

In general, it must be said that each exercise, each drill, each lesson at sea should be of maximum content. It is a matter not only of the shortage of time but also of the expensiveness of the outlays. Training exercises and drills that are saturated in content and have been conducted in one breath, as is said, gives the optimum effect. It is better to give time unsparingly in preparing them, it is better to give the off-duty watches an extra hour of rest, but conduct the exercise or drill dynamically, at the tense pace at which people should act to the maximum possible extent.

From the psychological point of view, it is very important that the crew be informed about the tasks set for the ship and about the difficulties that the sailors can expect at sea. If the crew knows well what task has been set and how it should be carried out, what has been done in the process of preparation and what still remains to be done, then even the most prosaic tasks will be carried out with enthusiasm and zeal, and each person will contribute to overall success.

Once during a lengthy cruise we fell into an extremely complicated situation. The time for surfacing was approaching. A rocking was now felt in the depths, but this occurs very infrequently. It was clear: there was a strong storm on top. And yet it was necessary to surface to charge the batteries.

But up above, something unimaginable had taken shape. Scarcely had I opened the conning-tower hatch and made myself fast on the bridge when an enormous wave covered the submarine. For several long seconds my involuntary stay under water stretched out agonizingly, but when I finally could breathe it had not become easier: I did not see the upper conning-tower hatch. In an instant the thought flashed that the submarine had been completely flooded with water. But now the desired hatch appeared, after taking on tons of water. After a second "dive," without hesitation I closed the upper hatch cover above my head in a fraction of a second.

I knew that the ship was proceeding close to rocks. The bearing on the cape, however, crept slowly past the bow, indicating that it was pulling the ship relentlessly to the shore. The second diesel had to be started, although the greatly rarefied air that is inevitable in such cases is very unpleasant, seemingly choking people. The bearing on the cape stopped, and, as if unwillingly, it slowly crept along the stern....The two diesels proved to be stronger than the storm.

I had already found out during these minutes that no one had drooped, no one had lost his head. Executive officer Capt-Lt P. Zhelonkin acted with initiative and decisively. All the sailors worked with precision at their posts. I had presupposed

that the tens of tons of water that the submarine had taken on through the open hatch had done some damage. And so it turned out. At the base we surely would be horrified: there would be work for weeks. But that was on shore....

The crew was told in detail about the state of affairs, and each one was explained his specific tasks in detail. The communists, under secretary of the party organization Seagoing Warrant Officer V. Vlasov, said their impassioned word. They recalled the feats of the S-56's sailors and called for action with full exertion of effort.

We had not seen such selfless work previously. Especially much concern fell to the lot of the electrical-mechanical department's sailors, who were commanded by Engr-Sr-Lt A. Davydovskiy. The people toiled with a cheerful frenzy. It was as if they had said to me: "We, comrade commander, can manage jobs much more difficult than this one." The tasks posed to the ship for that voyage were carried out so successfully that on shore they awaited us with not only the traditional roasted suckling pig but also awards.

The actions of the sailors under the extreme situation are not a rarity but, more precisely, the norm, the law. I, for example, during many years on submarines, have not once encountered panic in a critical situation. Seconds of dismay, but panic--never!

It seems to me that mobilizing people for high-quality fulfillment of obligations during the conduct of an ordinary watch is no less important and no less complex. The word "ordinary" somehow is not suitable here, for the watch is a special service.

Here is how the sonar operators man their watch. On the indicator are tens of splashes. Some of it is interference, created by the operation of mechanisms aboard the ship, part of it is sea noise. Part of it, perhaps, was created by the sonarmen themselves, by introducing excessive power. But perhaps this is the enemy? How important it is to be persistent, meticulous, and conscientious in analyzing and classifying the information, constantly rotating the antenna for listening. And it is very difficult to conduct this "ordinary" watch for 4 hours. And how many such watches there are aboard ship...!

The training of an excellent specialist, education in the firm spirit of the sailor that is traditional to the motherland, the party and the people--these are tasks that are solved in integrated fashion by the whole system of training, but the most important link in this chain is the example of and the job done by the commander, his unflagging monitoring, his skill in creating combat tenseness and training situations in which the sailors have to act to the limit of their capabilities.

#### Officer Training on Nuclear Submarine

Moscow KRASNAYA ZVEZDA in Russian 31 Oct 81 p 2

[Article by Capt 1st Rank G. Nikitin, commander of a nuclear-powered missile-armed submarine (Red Banner Northern Fleet): "Polished in the Ocean"]

[Text] Results of the training year: experience in going forward.



At a meeting at which the results for the winter training period were being summed up, I, to the applause of the crew, handed a little silver submarine--the emblem of a ship's commander, as it is called, which signifies that the officer has been cleared for independent ship handling--to executive officer

Capt 3d Rank Ye. Romanov and to damage-control assistant Engr-Capt 3d Rank A. Breusov. So now there are five officers in our crew who have the right to wear such emblems. This is the first time I have managed to have such highly qualified, deeply experienced replacements as ship handlers, a fact that testifies to a great rise in combat readiness of the missile carrier. And indeed, it is toward this that the military collective strives primarily, at which strong efforts in combat training and socialist competition are directed.

In order to raise still higher the precision and reliability of missile launches, the successfulness of torpedo attacks and irreproachability in carrying out ocean-navigation tasks, to increase the secrecy of submarine operations and to accelerate the transition to combat readiness--these are vitally important problems for submariners, who understand the complexity of achieving victory in modern battle. However perfected the ship may be, where personnel are not adequately qualified to serve the equipment and use the weapons, it will suffer destruction in battle. In skillful hands the nuclear-powered ship becomes safe, a real threatening force. In this case, its unique brain center--the ship's combat team (KBR) has a special, paramount role in raising the reliability and operating effectiveness of a nuclear-powered missile carrier.

The ship's specialists with the most important roles have been concentrated in this organ for controlling the submarine. And not just in time of battle is the whole crew under the firm influence of the ship's combat team. A good KBR exerts an active influence on all the submariners and on the daily training. Therefore, each commander strives to create a modern KBR.

Would it seem that achieving coordination and full mutual understanding of a fairly narrow range of specialists is such a problem? For it is enough to perfect and adjust this mechanism once and then not allow it to become enfeebled. But in life it is much more complicated. First of all, because people on the ship change. And just when a combat collective approaches perfection, life introduces its revisions.

Right now my former executive officer, Capt 2d Rank O Lazarev, is at school. He is an energetic officer, who did much to raise the ship's combat readiness and to strengthen the KBR. Of course, not all at once did he become like this, for no little effort and time were needed to train him. But during the past training year, when we had gone on a missile attack (the principal test of our crew), I was practically completely engaged in the attack itself and entrusted the struggle with the "enemy's" counterattacking forces to the senior assistant. Lazarev constructed the nuclear-powered ship's defense with confidence and reliability, managing to use energetically and completely the potential of the ship's combat team at each step in carrying out the task.

But we began the new training year with a new executive officer. It is true, Capt 3d Rank Ye. Romanov, who was appointed to this post, grew up on our ship. First, he was an excellent navigator. Then he went on several long-range cruises in the post of executive officer. The communists elected him secretary of the ship's party bureau. We understood that for Romanov it would be especially difficult: the range of official obligations is wide, the personal



responsibilities are extremely high, and, as party secretary, he is directly responsible for the crew's fulfillment of its commitments. But a maximum of spirit is an indispensable prerequisite to successful activity by the ship's collective in this year, which is especially important for us. And whatever additional difficulties might arise, they have to be resolved without allowance for the circumstances.

During the year, for one reason or another, several masters of military affairs left for other ships. But despite this, the crew still managed to overfulfill commitments for training specialists of higher qualification. And above all, the percent of masters on the ship's combat team rose. And indeed there has been a qualitative change in the KBR because of this. Because a master not only knows his own job well but he also feels with sensitivity the overall situation on the ship and can be especially useful at an important time.

The nuclear-powered ship recently carried out a torpedo firing. We were not spared when the complicated tactical situation was created. The psychological situation also was severe: everyone knew that the overall outcome of carrying out socialist commitments depended upon the current results.

And now the target has been detected. The ship maneuvers to inflict the blow--but on the turn the target is lost. There was no fright at all here. After completion of a circuit of the equipment, it was again held reliably and then the final data for the firing was worked out. Torpedo department commander Capt-Lt Yu. Pikh-telev had proposed that the data for the firing be fed manually into the torpedo without waiting for restoration of contact with the target. True, to do this, they had to compute very rapidly and accurately. The commander of BCh-3 [Department No 3] did this. Its data was completely confirmed. That is, the ship could conduct the firing blind, just in accordance with the calculations, and the result would be excellent. And one member of the KBR knew how to create this double reliability of the ship at the decisive moment of attack.

Yes, this is so. But behind the bright phenomena of individuality there almost always stand the efforts of the collective, the help of comrades, the difficult road to mastery that is traveled together. Of all the 110 rationalizers' suggestions that we introduced during the year on the ship (instead of the 70 stated in the commitments) the commander of the group, Capt-Lt A. Morozov, proposed the most valuable improvement. It allowed the combat readiness of the submarine to be practicably raised.

But indeed, at the start of the year an unfavorable incident involving Morozov occurred during a test of the ship by officers of the staff. The KBR was carrying out an attack on a simulator. Morozov lost his nerve during the test and very nearly broke off the attack. Yes, perhaps it is permissible for someone to lose his head at times, and to err, but not for a member of the ship's combat team of a nuclear-powered missile carrier. And so Morozov's blunder settled into the staff officers' memory. After a certain time an admiral organized precisely the same test for us. The situation turned out to be even worse for Morozov. But he managed to demonstrate excellent self-possession and precision. And these qualities became inherent in him after special and painstaking work with him.

In battle a ship needs only victory. Each day, everything on the ship should be subordinated to the achievement of this victory. But combat readiness does not exist outside concrete people. It consists of their mutual relations and services. This is life, this is a struggle, for every person. The collective becomes really

strong when it knows how to win victory in the sphere of education. Although on a nuclear-powered missile carrier it would seem to be simpler to write off a sailor who has deficiencies and to replace him with someone more suitable.

Certainly our crew would not feel right about itself in a moral sense if such a thing happened with us even once a year. Lt Yu. Monogarov at one time worried us. It did not trouble the young engineer of the electronic computer group at all that the ship had come forward as the initiator of competition in the Navy, that his comrades were striving for maximum output in their service. He studied his specialty without special relish, and once, because of imprecision in fulfilling an order, he almost got us into trouble.

How do you rouse an officer from incomprehensible passiveness? Both at Komsomol committee sessions and at officers' staff meetings they looked into his case....But the ship was preparing itself for a long-range cruise. In the end, the question came up about transferring him from the nuclear-powered ship. It was then that the ship's deputy commander for political affairs, Capt 2d Rank V. Zhukov, reminded us that the officer's father had in the past been a naval sailor—a seagoing warrant officer. Obviously, it was no accident that the lieutenant had made his life's choice, and certainly his officer's service was far from being a matter of indifference to his father. It was decided to put the stress on this in the educational work with the lieutenant.

And success was achieved. And during the cruise Monogarov was simply transfigured. By the end of the cruise he was a real submariner on whom one could count in everything. Monogarov became a specialist second class, participated actively and with interest in social work, and, like everyone in the crew, overfulfilled his socialist commitments. This was a victory for the crew and the KBR, of which Monogarov was a member.

In the Navy each year a contest for the best ship's combat team is promoted. And each time it is conducted at a still higher level. That which was achieved yesterday has become the norm for all today, and tomorrow will have its own new requirements. We considered each sailing, each long-distance ocean voyage, as an opportunity to enrich our experience in some way. Some innovations that we had mastered are being introduced into the fleet. A new organization of competition within the KBR proved to be especially effective.

Each Thursday we have been arranging open competitions among the working units of the KBR (by combat shifts). The theme has been explained previously. Let's say, "Reduction of the effectiveness of the enemy's use of weaponry," "The watch officer's initiation of an attack," "Knowledge of the ship's construction and how to deal with damage control...." Special tasks and questions and situation have been prepared within the framework of the topic. For example: "An airplane has dropped a buoy, which has been observed in the periscope. What are the watch officer's actions?" A stopwatch has been included. The combat shifts work out collective recommendations for their watch officers, who make the decisions.

A high spirit of competitiveness, clarity and a comparison of the results, the opportunity to master advanced experience, and a "meshing" of the specialties--what these Thursdays have given us cannot be enumerated entirely. The submariners loved them, and they gave us collective enthusiasm. And if the service is driven by enthusiasm, then the most difficult tasks are within the crew's powers.

This can be confirmed by many instances. But suffice it to say that the crew carried out all combat exercises of the year excellently, and the missile firings were recognized as worthy of being examples of coordination of ship combat team actions.

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## STRATEGIC ROCKET FORCES

### TRAINING METHODS DISCUSSED

#### Overview of Lt Col Shelestov's Unit

Moscow KRASNAYA ZVEZDA in Russian 17 Oct 81 p 1

[Article: "A Pioneer in Competition, This Unit Fulfills Its Commitments!"]

[Text] For the soldiers, sergeants, warrant officers and officers of the unit [chast'] commanded by Lt Col I. Shelestov, this past training year has been one of intense martial effort. Before the training year began, unit personnel had initiated socialist competition within the Strategic Rocket Forces. High standards in combat and political training were set.

Final results for the training year show that the unit successfully fulfilled the obligations it undertook to achieve a high state of combat readiness and establish solid military procedures. The unit confirmed its designation of "excellent" for the sixth time in a row. Sixty-six percent of the missile crews here earned the "excellent" designation. There was an increase in the number of individual excellence awards for training, and the number of qualified specialists and expert missilemen rose. High ratings were received in tactical and specialized exercises. Unit [podrazdeleniye] personnel have been vigilantly standing their watch. These results are the embodiment of an enthusiastic spirit of patriotism in these missilemen and their striving to successfully implement the decisions of the 26th CPSU Congress.

The meritorious service of unit commanders and political workers, and of the party and komsomol organizations has been outstanding in achieving these successes. The unit [chast'] commander, Lt Col Shelestov, is serving with initiative and enthusiasm. An experienced methods expert, he is a capable organizer of combat training and competition. He is distinguished by virtue of his purposefulness and his constant striving to perfect command qualities.

Lt Col Shelestov was born in 1942. After finishing high school he entered a military institute. Here he became a member of the Communist Party. Upon graduation from the institute he commanded units [podrazdeleniye], then assumed the post of unit [chast'] deputy commander. He returned to studies once again--this time to an academy. Since 1977, officer Shelestov has been a unit [chast'] commander. He is qualified as a missile expert and has been awarded the Order of the Red Star.



"The Dynamics of Growth" appears on page two of today's paper. Here Lt Col Shelestov shares his experience in organizing combat training and competition, and reflects on ways to improve the quality of training and instruction. This article is the first in a series of presentations by unit [chast'] commanders and commanders of nuclear missile submarines--pioneers in competition within the services of the USSR Armed Forces.

### Training Methods and Techniques

Moscow KRSNAYA ZVEZDA in Russian 17 Oct 81 p 2

[Article by Lt Col I. Shelestov: "The Dynamics of Growth: Training Year Results, Methods of Progressive-Minded Leaders"]

[Text] What a rainy day it was--bitter cold and windy as well. It's never easy to accomplish combat training tasks under such conditions. Yet prior to the tactical and specialized exercise, missilemen in the unit [podrazdeleniye] commanded by Capt V. Lezhnev had confided, "We'll return with a five [maximum]."

Then when the exercise was over and the unit had received the highest grade for its operations, members of the training methods council invited Capt Lezhnev to their conference. The following question was posed, among others:

"How did you manage to achieve such close coordination in the operations conducted by your specialists, the better half of whom are newcomers?"

The unit commander replied:

"We developed a moral standard--each person must strive to achieve not only for himself, but for his comrades as well, for the entire collective."

Capt Lezhnev's reply was correct. It is right here the motto was born: "The honor of the unit [podrazdeleniye] is my honor." Here the motto took root and gathered momentum. Other units adopted it as well.

Staff officers and members of the training methods council have been studying Capt Lezhnev's techniques. It is well known that valuable and progressive ideas don't always lie on the surface. Sometimes it turns out that, when you look at the methods of a progressive-minded leader, you don't notice anything "outstanding" in them. You say it's just the old, tried and true approaches and techniques being used. Once this is recognized, there's no need to talk about some novel approach to organizing combat training and competition. You simply say--this is a diligent officer and that's why he is successful.

Certainly nothing much can be achieved without diligence. But real-life experience convinces us of something else as well--any commander who works creatively has a great deal of something that everyone should work on picking up.

Let's look at the techniques that have helped Capt Lezhnev develop teamwork and coordination in his missile crews. There is nothing "outstanding" in it at first

glance. In other words, it is based on the classic, traditional principle of instruction--you go from the easy to the complex. New arrivals first come to understand the rudiments of their future specialty. Then they begin to master practical habits. Gradually, as the specialists' expertise grows, the drill and training exercise environment becomes more complicated and the number of ready-for-duty missilemen grows. They begin to develop teamwork, then to assimilate associated specialties.

This approach is used by all commanders in the unit and has generally proven correct. But Capt Lezhnev is an officer with a creative vein. He went a step further. Before getting down to forming his crews, he would determine the technical training level of his new men and their psychological and physiological condition as well. This enabled him to construct a more efficient, step-by-step training scheme for his specialists. Then he attempted to combine two stages of training--mastering both basic and associated specialty. It worked out, though not right away. The training program has now become more diversified and flexible. It allows us to take into account the peculiarities and merits of each individual undergoing training. Of course this has created additional difficulties for the commander--many of them, we might add. On the other hand, the unit has reached a stage now where, by the time the newcomers have fully mastered their functional responsibilities, they are already capable of performing as a crew member.

Unit [chast'] staff officers and members of the training methods council assisted all unit [podrazdeleniye] commanders in noting and evaluating the fundamental efficiency-promoting element in Capt Lezhnev's methods. A system was set up to monitor introduction of the valuable innovation, and it has yielded favorable results in the other units too. Getting a young specialist ready for duty is now not conceived of in any other way--he functions in each training exercise according to a program specially designed for him. Using consolidated training cards, we can easily modify the program in order to check on how an individual is handling those tasks whose accomplishment depends on his ability to perform as a crew member.

At a session of the military council for Strategic Rocket Forces where I lectured midway through the training year, I dealt specifically with implementation of the method whereby missilemen undergo training in two specialties simultaneously--their basic specialty and an associated one. Approving this undertaking, military council members recommended at the same time that we more fully utilize the techniques of other progressive-minded units [chast']. And so, following our neighbors' example, we began practicing joint training exercises and drills with competing crews. As a result, we succeeded in significantly raising the level of quality with regard to mastering combat training skills.

The need was pointed out at a military council session to make fuller use of the opportunities afforded by competition in the interests of further consolidating unit [chast'] military procedures. We applied more creativity and initiative, introduced a more businesslike approach to this important and diverse work. The efforts of unit [podrazdeleniye] commanders, political workers, and party and komсомол organizations were rewarded--the level of military discipline and combat readiness in the unit [chast'] rose appreciably.

In implementing the historical decisions of the 26th party congress, we are directing the efforts of our personnel to the struggle for greater increases in combat

readiness and further consolidation of military procedures. The stance our pioneers in competition have taken obliges us to exert ourselves while keeping the pressure on, to strive to attain greater and greater achievements. In practice, however, we are confronted with the situation where one officer or another, having attained a high level of success, feels that now he can work a bit less intensively and save his energy. There is no greater "turn-off" than the idea--look, I've worked conscientiously and I've accomplished what none of my predecessors were able to accomplish. This kind of "sickness" poses a greater danger in that it spreads to those around. Subordinates cannot help but see that their commander is resting on his laurels.

The unit commanded by Capt A. Vyalov has now caught up with the rest--we won't criticize him any more except to say that. However, things weren't going very well here when the year began. It was as if the growth of specialist skills had come to a halt. The evaluation team headed by Maj A. Yerzunov, chief of staff, came to the conclusion that the unit commander, having done quite a bit to increase the level of specialists' training, was not now demanding as much from himself or from his subordinates. For example, when before he strived to make every training exercise instructive and conduct it in the competitive spirit, he was now contented merely with having everything go according to plan without collapsing. Nor did Capt Vyalov take advantage of the experience accumulated by officers in the unit [chast'] who were the most successful in training methods. So as a result, when the evaluation team toughened up the training exercises, crews here were not making the extra effort to get an "excellent" in all areas.

This was an object lesson for Capt Vyalov. In a dutiful manner he began to eliminate deficiencies, and took full advantage of Capt Lezhnev's experience.

I'd especially like to pause to touch upon matters related to introducing progressive methods. At times there is a great deal done for the sake of formality in such work. You conduct a methods conference, hold an assembly and instructional demonstration, then think everything's done. You often lose sight of just how it is that methods take root, of the difficulties that arise in this regard.

This training year we are seriously undertaking to improve efforts to popularize and introduce progressive methods. The training methods council, formerly headed by officer G. Voronkin, is making a great contribution in this regard. It has a fully developed sense for innovation, striving to seek, to experiment.

Preparation is taking place, for example, for an instructional demonstration. Officer Voronkin and members of the training methods council introduce valuable recommendations into its plan. Without fail, the demonstration is "played through." Officers and warrant officers discuss the procedural innovations they have noted, and propose ways to enhance quality in working out the most complicated training matters.

In the long run the benefits are substantial. It is one thing to hear about experience and quite another to see it, or go so far as to participate very actively in creative discussion of an innovation.

A great deal was accomplished over the past training year to perfect training equipment and materials. Quite a few proposals for streamlining have been submitted. Simulators, operational mock-ups and functional devices have been built. Without a

doubt these have been beneficial in individual training of specialists. But sometimes it has been difficult to tie in these contrivances with organizational training equipment.

Unit [chast'] staff officers and members of the training methods council pondered over whether or not it would be possible to combine the efforts of our innovators. Have them build a certain contrivance, but one that would enable specialists in a variety of areas to work out complicated training problems.

We discussed this matter in official deliberation. Unit party members introduced it into the agenda for the next party meeting. The komsomol organization also became involved.

We organized a few streamlining teams composed of specialists in a variety of areas. Especially fruitful were the efforts of officer communists A. Yerzunov, A. Yakushkov, G. Rodionov, warrant officer V. Chulkov, Private A. Galashov, and others. The work these innovators accomplished was crowned with success. Simulator training devices were fashioned which, in conjunction with organizational training equipment, model the functioning processes of combat equipment with a high degree of accuracy. Conditional aspects of mastering combat training-related skills were reduced to practically zero. The quality of training exercises and drills was enhanced substantially. Time required for young specialists to achieve ready-for-duty status was reduced by almost 20 percent, and the time required to attain proper teamwork and coordination was cut by 15 percent.

Our innovators are looking ahead, thinking about building training and simulator equipment using multi-purpose components, computers and logic devices. This will increase the reliability of the existing training equipment even more, augment its traffic-carrying capacity and make it possible to conduct exercises simultaneously with all personnel--a single mission in a single tactical environment.

Analysis of the year's results has enabled us to uncover our deficiencies and unresolved problem areas. There were occasions, we have to admit, where certain exercises were conducted in a smoothed-over format, contained few innovative elements and little creativity on the part of the leader. In summing up the results of competition and rendering the progressive-minded individuals their due, the "average fellow" has sometimes been left in the shadows. We are currently preparing for a party meeting at which businesslike discussion will be conducted on how to eliminate these and other shortcomings more efficiently.

We have had no gross violations of military discipline over the past training year. Now--could we possibly achieve a condition where there were no minor violations as well--no daily-routine or uniform infractions? "That really wouldn't be in our power," a few unit [podrazdeleniye] commanders have said skeptically. "People are people, you know..." But we cannot agree--just why, exactly, is it beyond our power? What do you find in Capt Lezhnev's unit but other people? And there isn't a single infraction against military discipline here. It turns out you can achieve such a condition if the required effort is made.

It's noteworthy that this discussion began at a party meeting. Once communists tackle a problem, you can be sure they will apply vim, vigor and party fervor in accomplishing a great and far-from-simple task.

In a word, we have our work cut out for us this new training year. What has been achieved is the groundwork for moving forward.



## MILITARY SCHOOLS AND ACADEMIES

### MILITARY SCHOOL ACTIVITIES DESCRIBED

#### New Medal for Graduates

Moscow KRASNAYA ZVEZDA in Russian 15 May 81 p 2

[Article: "A New Chest Badge"]

[Text] An ukase of the USSR Supreme Soviet Presidium instituted a new chest badge for persons who completed higher military schools as well as military institutes and military faculties of civilian universities. The new badge conforms in shape to the badge for completing a military academy: a slightly convex diamond shape with five-pointed red star in the center, with a gilt depiction of the USSR State Emblem above it. But the surface of the new diamond-shaped badge is covered with light blue enamel rather than white.

The new chest badge will be presented beginning with the 1982 graduation. This year's graduates will receive the old model badges, but with the right for a later substitution for the new badges. Badges received earlier are not subject to replacement with new badges. The new badge will not be issued in case a badge is lost or damaged.

#### Special Tactical Simulator at Frunze Higher Naval School

Moscow KRASNAYA ZVEZDA in Russian 6 Jun 81 p 1

[Article by KRASNAYA ZVEZDA correspondent Capt 1st Rank N. Remizov: "Effectiveness and Quality is Paramount: A Signal on the Flagship"]

[Text] Cadets head for the class through the famous "Compass Room" with the portrait gallery of school graduates who are Heroes of the Soviet Union and Heroes of Socialist Labor. There are 75 portraits, some of which have appeared in recent years. The glorious tradition of the Higher Naval School imeni M. V. Frunze continues and its traditions multiply.

The class on the topic of ships operating in company is being conducted on a special tactical simulator, one of the best in the Navy. Its concept was worked out by school chief Rear Adm N. Fedorov. An experienced navyman and thoughtful teacher, he is personally checking progress of the practice today. When Nikolay Konstantinovich is in the class, that means it will be held at a high level and will enrich not only the cadets, but instructors as well; the more so as Capt 3d Rank G. Kuznetsov, recently assigned as an instructor, is working with the future officers at one of the training stations.

Rear Adm Fedorov, a delegate to the 26th party congress, has appeared more than once before the officers and cadets to explain congress resolutions and has directed seminars. In all classes his words ring fresh for the people, exciting them and helping them see the profound political meaning in routine service. And today as well, before working the topic the school chief told about its importance in a Navy officer's professional development so that it was as if a sea breeze blew through the auditorium. Each of the cadets felt himself to be a participant of an actual group operation of ships.

At the command of the class instructor Capt 1st Rank Yu. Mozolev, everyone took their places according to the bill and readied their areas of responsibility. At a signal from the flagship, four ships weighed anchor and, forming a column, proceeded to the designated area at slow speed.

The situation became more and more dynamic. It was ordered to increase speed to half. The flagship hoisted new signals and the ships changed course. Navigators performed a navigational plot, radar operators provided them with data and helmsmen executed commands precisely.

The simulator reproduces almost all operations in what can be said to be actual scale. The outlines of a coast along which the route passes is on the radar scopes. The bell signals resemble the "music" of the electric alarm bells. Control is exercised over loudspeaker communications and with the help of naval code flags and the balls, familiar to navymen, which tell of the speed. At times the ships "yaw," as it happens in actuality.

The future officers experience a great load, but still everything will be more difficult at sea in brisk weather. The school chief reminds his students about this. Then he asks Cadet V. Vyal'tsev, acting as navigator, how much time was given for weighing anchor. On receiving the answer, he suggests that the calculations be repeated. Soon the cadet sees that at sea it will take longer to weigh anchor.

Reports are taken from ship's commander Cadet A. Gayduk and officer of the watch CPO S. Belyy. And again the rear admiral has critical remarks. He uses narrative problems to help find the mistakes and comprehend them.

A green flare soars up from the flagship. The ships change course. The school chief perceived errors in the actions of some cadets. He noted that Cadet G. Kuznetsov took account of all the fine points of the situation better than the others. It is gratifying to receive praise from the rear admiral.

The school chief recalls an incident in seamanship practice showing what the mechanical execution of commands might lead to. He emphasizes that it is possible to estimate a situation even in a matter of fractions of a second. Analyzing the mistakes of future officers, Rear Adm Fedorov suggests how to accelerate calculations, sharpen the nautical eye and develop a commander's thinking.

An atmosphere of spirited competitiveness reigns in the class. Cadets compete with each other and teams compete in the quality of performing each operation. First place is determined according to exercises and also according to the week's results. During the week each cadet is in the role of specific appointments of the primary control station several times. His preparation for each position is evaluated and

very interesting results are obtained. For example, Cadet Yu. Kostrubov is evaluated as the best officer of the watch, but he did not show his best side in the role of ship's commanding officer. The future officer has good knowledge, but still lacks command skills and decisiveness. The simulator permits an objective evaluation of all cadets and a determination of their strong and weak points. As in all previous practices, the instructor's approach to the trainees in this practice is strictly individual.

The situation reaches maximum intensity. Notification about the air "enemy" has been received. Blips from high-speed air targets are on the scopes. At this moment Cadet V. Mikhaylovskiy is operating especially precisely. The situation has been estimated competently, the decision made and target designation issued to the air defense gun mount...

The practice is coming to an end. The school chief and instructors critique the teams' actions thoroughly. They are strict in their grading. Only two receive the highest grade: Cadet G. Toluzakov, who was acting as ship's commanding officer, and Cadet A. Sidorov, who was at the navigating post as officer of the watch. The rest receive more modest grades.

The school chief reminds them that final practice is ahead. This will determine the best class in shiphandling and those who are strongest in the role of commanding officer, navigator and so on.

...One ordinary practice class, but how much reflection it generates. One sees a sophisticated training facility and foremost methodology. One sees the alloy of invaluable experience of senior officers and the fervent desire of young persons to enrich themselves with what will be needed soon on ocean deployments.

#### Candidate Selection Problems Discussed

Moscow KRASNAYA ZVEZDA in Russian 11 Aug 81 p 2

[Article by Lt Col K. Pashikin: "Calculations and Miscalculations: On Certain Problems of Candidate Selection for Military Schools"]

[Text] Oleg Golubtsov arrived at the Ryazan' Higher Military Automotive Engineering School from Moldavia. He presented a "golden" appraisal which contained only outstanding grades, and a driver's license. The lad's school appraisal stated that he had dreamed of the officer's profession while still in early classes, and he had written about this repeatedly in compositions. In short, a candidate had arrived in school who had firmly determined his choice in life and who had high moral-political qualities and a reliable general educational preparation--qualities so needed by a future officer.

Valeriy Sereda from Rostov-na-Donu and Sergey Oparin from Leningrad showed their best side in entrance exams. Both had completed vocational-technical schools with honors, had managed to become familiar with equipment, and had correct ideas of military service and the officer's profession.

Vyacheslav Bol'shakov also had no vacillation in choosing a profession. He decided to become a motor transport officer under the influence of his father, who 20 years ago had completed this same military school.

Those in the school were satisfied with the contingent of first year cadets. Nevertheless, it cannot be said that the competitive exam had been without shortcomings or that those very candidates arrived in school who had been expected. Many lads who had received a call to take the exam on time did not appear at the school. That means they gave up their previous intentions at the last moment. Judging from everything, the desire to become an officer appeared by chance in them and had not been thought through or regulated. It is a pity that in drawing up the files of such candidates, the military commissariats did not bother to study the people.

Many facts indicate that this is so. Take for example the personal file of I. Sergunin, sent by the Gus'-Khrustal'nyy Rayon Military Commissariat of Vladimirskaya Oblast. The lad's school appraisal states: "Crude, lacks interest in studies, does not prepare for lessons." Did the military commissariat workers read this document? Schools issued negative appraisals to A. Sedenkov, V. Plaksin and A. Chistyakov. One senses that these graduates gave the instructors much trouble. But officials of the Dolgoprudnyy City Military Commissariat of Moscow Oblast, of Konyshhevskiy Rayon Military Commissariat of Kurskaya Oblast, of Bogorodsk City Military Commissariat of Gor'kovskaya Oblast and the corresponding oblast selection commissions still sent the personal files of these lads to the school.

The school studies carefully the appraisals issued to school graduates. As a rule, they are objective and, in combination with the school-leaving certificate, provide a certain impression of the candidate. But military commissariats often do not take account of the opinion of teachers, including military instructors. Preference is given to numbers and an impressive figure. And so a strange situation often takes shape: After examination at the school, the personal files of a number of candidates are returned to the military commissariat, but there is not always success in summoning to the exams those who are distinguished by good preparation. For example, the city military commissariat refused to send Vitaliy Gorzhantsev from Zheleznogorsk, Kurskaya Oblast, to the school because there was no "allocation." The lad completed a tekhnikum in the specialty "Automobile Maintenance and Repair." "I dream of becoming a motor transport officer," he wrote to the school. I request a call as an exception." The call was sent from the school, but the city military commissariat did not pass it on. "It is unfortunately not an isolated case," said Col I. Korolev, member of the acceptance commission, commenting on this fact. "Military commissars and unit commanders often refer to lack of an allocation. But they do not take into account the fact that selection commissions have been given the right to send more boys to universities than prescribed by the allocation, and to make a selection to schools which are not indicated in the allocation."

Allocations for selection of candidates introduce a planned basis in bringing schools up to strength, guarantee selection of the requisite number of school-leavers and provide for competition. But it would appear that selection would be more effective were the compilation of allocations to be preceded by a collection of information from units and military commissariats as to the availability of those desiring to enter specific schools. In this instance there would be fewer complaints of the lack of "allocations" and no one would inflate the number of candidates by lowering demands on them.

I was shown a stack of applications with the words: "Request documents be returned..." They were signed by candidates who had decided not to take entrance exams while already at school. The lads, who had made a trip of no small distance at government expense, had become familiar with the regulation of the life of a



military educational institution, had gotten a taste of military discipline and immediately requested that they be sent home. We part with those without regret, but we cannot help thinking about the irrational waste of state funds. By the way, there are especially many of those who "change their minds" sent from remote military commissariats—from the Kazakh, Azerbaijan and Moldavian SSR's. A loss of another sort also is apparent. If a lad changes his decision just before exams, this means he has deprived one of his contemporaries of an opportunity to participate in the competition and has hindered him in making his dream come true.

In familiarizing oneself with the candidates' personal files, one pays particular attention to such an authoritative document as the all-union Komsomol order for training. Those who receive the order have preference in acceptance, with all else being equal. What is the disappointment experienced by members of the acceptance commission when they conclude that the order was not presented to the person most worthy! It is strange, but nothing hindered I. Sergunin, mentioned above, from receiving a raykom order. A Komsomol order was issued in the Starooskol'skiy Raykom of the Komsomol of Belgorodskaya Oblast with the very same ease to K. Kukushkin. His appraisal states: "Lacks initiative and does not study regularly." All grades but one are threes in the school-leaving certificate. How did the lad catch the raykom's eye? How did he earn its trust? It would appear that the selection commissions of oblast military commissariats, which include representatives of Komsomol entities, must remind Komsomol committees that only the cream of the crop has the right to orders, those who prove themselves especially in training and in public affairs.

Entrance exams represent a fleeting campaign, but the selection of candidates to military schools is a task requiring constant and unremitting attention and the coordinated work of commanders, political officers, military commissariat officers, teachers and Komsomol workers. To analyze results of competitive exams thoroughly and learn lessons from them means to improve continuously the selection of the best representatives of Soviet youth, capable of carrying the high title of officer worthily all their lives.

#### Flight Exams at Kacha Aviation School

Moscow KRASNAYA ZVEZDA in Russian 2 Oct 81 p 1

[Article by Maj B. Makarevich: "A Ticket to the Sky"]

[Text] The Volga steppe is bleached to monotony by the intense midday heat. Harvested fields spread out around the airfield—a sure sign of autumn. But the weather still is excellent, and heated work continues in the sky: Cadets of the Kacha Higher Military Aviation Pilots' School imeni A. F. Myasnikov are taking state exams in flight training.

First to take the test of maturity are young aviators of the squadron commanded by Military Pilot-Instructor 1st Class Lt Col A. Korol'kov. Not long ago a party meeting devoted to the upcoming tests was held in this subunit. And now there is a banner in a prominent place at the starting line and operational newssheets and express leaflets have been posted calling on the cadets to account for their work with the highest grade. The graduates have a smart appearance and are composed. Everyone has a holiday mood. Tests are tests.

Not far from the two-place trainer, deputy squadron commander Maj V. Goryachev gives parting words to Cadet Sergey Yeshirin:

"Don't be nervous, and do everything as you have been taught. I have no doubt of your success."

In a few minutes the two-placer, a supersonic fighter-trainer, takes off for the flying zone.

Maj Goryachev, instructor pilot Capt V. Ravnushkin and their comrades are on the ground today. They are more accustomed to the close fighter cockpit and to the fact that in combat training the time count must be kept every minute.

Aviators are working with great patriotic enthusiasm in the year of the 26th party congress. The congress statement about an increase in training quality in military educational institutions was perceived by them as their own vital affair. The subunit command element and party organization devote much attention to an improvement in planning and an increase in discipline and efficiency in flights. As a result the subunit fulfilled the flight training plan with cadets. The first sorties in state exams showed that the training process in the squadron has been placed at a high level.

Cadet Yeshirin coped with the flight excellently. He competently piloted the fighter in the zone. He precisely determined the zone boundaries according to characteristic reference points and began executing figures. Banked turns, dives, zooms--a wide variety of figures. The cadet demonstrated a high degree of schooling.

It is not by chance that advanced flying is done in state exams. The names of Triple HSU A. Pokryshkin and other aces who set examples of flying proficiency and courage in the flaming sky have been entered in the history of the oldest school in the land. All of them mastered aerobatic flying to perfection.

Present-day heirs of the heroes' combat glory did not go through the stern tests which fell to the lot of their fathers and grandfathers, but they are true to their heroic traditions, learn to act with daring and in a frontline manner in peacetime, and persistently polish flying techniques.

After executing the flying in the zone, Cadet Yeshirin concluded the flight with an excellent landing in the same breath, as pilots say. Fighters take off one after the other and come in for a landing after performing the assignment. More and more outstanding grades appear on the test sheet. Faces of cadets M. Kolesnik and V. Plekhanov light up with joy. Their dream is coming true. Soon they will be presented lieutenants' shoulderboards and they will become armed defenders of the Motherland's sky. Outwardly calm, officers V. Ravnushkin and V. Troshev and their colleagues observe their pupils. The graduates will take wings and head for major flight duties. A road as wide as the sky is opening before them.

Cadets pass the state flight training tests with a high average mark of 4.8. This is a worthy contribution of the Kacha aviators to accomplishment of the important missions for the Armed Forces stemming from resolutions of the 26th CPSU Congress for strengthening our Motherland's defenses.

## Activities at Kuybyshev Combat Engineering School

Moscow KRASNAYA ZVEZDA in Russian 2 Oct 81 p 1

[Article by Col (Ret) A. Belokon', candidate of military sciences: "Students' Scientific Work"]

[Text] Each year the military science society at the Military Engineering Academy imeni V. V. Kuybyshev expands its ranks. The fact is that participation in scientific work helps students deepen their knowledge and acquire skills in conducting experimental and theoretical research.

The faculty headed by Doctor of Military Sciences, Professor, Maj Gen Engr Trps Yu. Dorofeyev devotes especially great attention to precise planning of students' scientific work and careful selection of research topics.

All this contributes to the fact that Academy students take an active and productive part in the All-Union Review of Scientific-Technical Creativeness of the Youth and in the contest of best student projects. Over the last three years two contest projects were awarded medals of the USSR Ministry of Higher and Secondary Specialized Education. Academy students have two silver and one bronze medal of the USSR VDNKh [Exhibition of Achievements of the National Economy] to their credit, which recognize their projects at the Central Exhibits of NTIM [Scientific-Technical Creativeness of the Youth].

Preparations for participation in the next phase of the All-Union Review of Scientific-Technical Creativeness of the Youth now have begun in faculties and chairs of the Academy.

## Staff Officer School and Experience

Moscow KRASNAYA ZVEZDA in Russian 21 Oct 81 p 2

[Article by Maj A. Kudryavtsev, chief of staff of Proskurov Motorized Rifle Regiment, Group of Soviet Forces in Germany: "Military Educational Institutions: The Connection Between Training and Practical Experience: ...Plus Skills in Staff Work"]

[Text] The regiment's attack was developing successfully. First echelon battalions had penetrated the "enemy" forward edge of defense and had punched a "corridor" in the depth of his combat formations. In order to exploit success it was important to hinder the approach of the defenders' reserves and provide favorable conditions for commitment of the regiment's second echelon. This mission was received by the motorized rifle battalion where Sr Lt B. Zhiganov is chief of staff.

The situation estimate, decisionmaking, preparation of combat documents and making them known to subordinate, attached and supporting subunits--the battalion commander and chief of staff did all this efficiently and precisely. In doing so, however, Sr Lt Zhiganov made a mistake in the time calculation for the battalion's advance to the commitment line. The motorized riflemen were late by just a few minutes, but the "enemy" had time to realign combat formations and greeted the attackers with organized fire.

And so just one seemingly slight mistake by the chief of staff led to failure.

The battalion chief of staff is responsible for organizing and maintaining control of the subunits and for combat readiness, planning and accounting for combat and political training. High military culture, maximum precision in work, and the discipline of execution--that very pendency for which a person often is scolded--are necessary in performing these as well as other duties. It is extremely necessary for the chief of staff. I can confirm this on the basis of my own experience. Before my present position I was a battalion chief of staff for several years. For an officer who has headed a subunit staff it is no simple matter at all to respond immediately to the new and rather specific demands placed on the person.

Let's take this same Sr Lt Zhiganov as an example. It stands to reason that he did not assume the position of battalion chief of staff all at once. It was already the third step in his officer's career: After completion of the Moscow Higher Combined-Arms Command School imeni RSFSR Supreme Soviet he successfully commanded a platoon and later a company. It was, by the way, the best in our regiment and the officer deservedly enjoyed the authority of a conscientious, tactically competent commander of initiative who was able to work with people. He also had a good knowledge of battalion equipment and weapons. But Zhiganov clearly lacked the skills of staff work. This showed up not only in the course of exercises, but also in the subunit's daily life.

The very same can be said about other former battalion chiefs of staff of our unit: Capt N. Arkhipov, Sr Lt S. Orlov and Capt V. Krivonos. Having firm skills in commanding companies, they nevertheless felt rather unsure of themselves at the head of battalion staffs.

Arkhipov was not able to allocate his working time rationally and so he was constantly bothered by trivial, routine matters. At times he would sit down for work on papers and would not be at the range for weeks, but one can't learn the battalion's life from telephone information or reports from company commanders. Orlov lacked skills in planning. Because of this, for example, only a few battalion and company problems were of an opposed-forces nature, which could not help but affect the quality of the training process. Krivonos initially did not attach proper significance to the discipline of execution and did not require it of company and platoon officers.

It is true that in time all of them overcame the shortcomings and successfully passed the test of the third step in officer service. They were helped greatly by their senior comrades, the regimental commander and his deputies. It stands to reason that the regimental staff also did not remain aloof.

We tried to create work conditions for the battalion chiefs of staff under which they could display independence and initiative. We didn't coddle them in trivial matters nor did we press them without need. On the other hand, we thoroughly taught them the specifics of the new work and saw to it that they knew by heart the organization, weapons and principles of combat employment of their subunits and those of the probable enemy; processed staff documents competently and rapidly; and mastered the duties of battalion commander. The fact is that when necessary, the chief of staff issues orders and instructions in the commander's name.



In short, we had to work a great deal to ensure that young chiefs of staff felt confident in the entrusted post in the end. The question naturally arises: Isn't it better to prepare officers for staff work while still in military school?

Unfortunately, of the three schools which captains Arkhipov and Krivonos and senior lieutenants Zhiganov and Orlov completed at one time, not one armed its students with more or less firm knowledge in this area. The fact is that a graduate of a higher military command school holds the position of tactical or artillery battalion chief of staff without taking any additional courses or TDY on a staff. It is unfortunate that the schools do not always take this into account.

Yes, a minimum of lectures on staff work is given and cadets have certain knowledge about its essence and nature. But in recalling his past as a cadet, many a school graduate will affirm that even if he did play the part of an appointed person in a field problem or short tactical training problem in his training years, that person was a platoon or company commander and sometimes a battalion commander. He would make the decision for the commander, issue the operation order and arrange coordination. And only in rare instances are future officers given an opportunity to test themselves in the role of chief of staff. But every school has many more opportunities for this than merely the use of short tactical classroom problems and field problems.

Why not, for example, adopt regular, alternating practical work by cadets in the role of non-T/O&E chiefs of staff of cadet battalions? And can't future officers really be accustomed to staff work during troop OJT? The number of these "why not's" and "really's" can be increased considerably. It would appear that it is time for schools to have a look at this question as an important part of the overall problem of reinforcing ties with troop life.

In life it is not immediately possible to select an officer for the position of battalion chief of staff. Even in our outstanding regiment, where there are many foremost, highly trained officers, far from every one, as already mentioned, can lay claim to this position with sufficient grounds. This year, for example, we selected only two battalion chiefs of staff in our unit in place of four who left for study at the academy. The others had to be "requested" from other units. I will stipulate immediately that even for these comrades their development in the new position is not a simple matter.

I leaf through their personal files and ask where they studied. It turns out that they studied at the Tashkent Higher Combined-Arms Command School imeni V. I. Lenin and the Khar'kov Guards Higher Tank Command School imeni Supreme Soviet of Ukrainian SSR. It turns out that not all is going smoothly there with the training of future officers as staff workers.

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